Duke Energy Maricopa, LLC
ARLINGTON VALLEY ENERGY PROJECT (AVEP)
Permit Number V99-014

Table of Contents
October 18, 2000

GENERAL PERMIT CONDITIONS:

SPECIFIC PERMIT CONDITIONS

APPENDICES:

Duke Energy Maricopa, LLC
ARLINGTON VALLEY ENERGY PROJECT (AVEP)
Permit Number V99-014

October 11, 2000

In accordance with Maricopa County Air Pollution Control Rules and Regulations (Rules), Rule 210 § 302.2, all Conditions of this Permit are federally enforceable unless they are identified as being locally enforceable only. However, any Permit Condition identified as locally enforceable only will become federally enforceable if, during the term of this Permit, the underlying requirement becomes a requirement of the Clean Air Act (CAA) or any of the CAA's applicable requirements.

All federally enforceable terms and conditions of this Permit are enforceable by the Administrator of the United States Environmental Protection Agency (Administrator or Administrator of the USEPA hereafter) and citizens under the CAA.

Any cited regulatory paragraphs or section numbers refer to the version of the regulation that was in effect on the first date of public notice of the applicable Permit Condition unless specified otherwise.

GENERAL CONDITIONS:

1. AIR POLLUTION PROHIBITED: [County Rule 100 §301] [SIP Rule 3]
The Permittee shall not discharge from any source whatever into the atmosphere regulated air pollutants which exceed in quantity or concentration that specified and allowed in the County or State Implementation Plan (SIP) Rules, the Arizona Administrative Code (AAC) or the Arizona Revised Statutes (ARS), or which cause damage to property or unreasonably interfere with the comfortable enjoyment of life or property of a substantial part of a community, or obscure visibility, or which in any way degrade the quality of the ambient air below the standards established by the Maricopa County Board of Supervisors or the Director of the Arizona Department of Environmental Quality (ADEQ).

2. CIRCUMVENTION: [County Rule 100 §104] [40 CFR 60.12] [40 CFR 63.4(b)]
The Permittee shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of regulated air pollutants to the atmosphere, conceals or dilutes an emission which would otherwise constitute a violation of this Permit or any Rule or any emission limitation or standard. The Permittee shall not circumvent the requirements concerning dilution of regulated air pollutants by using more emission openings than is considered normal practice by the industry or activity in question.

3. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS:
[County Rule 100 §401] [County Rule 210 §§301.7, 302.1e(1), 305.1c(1) & 305.1e]
Any application form, report, or compliance certification submitted under the County Rules or these Permit Conditions shall contain certification by a responsible official of truth, accuracy, and completeness of the application form or report as of the time of submittal. This certification and any other certification required under the County Rules or these Permit

Conditions shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

4. COMPLIANCE:

A. COMPLIANCE REQUIRED:

1) The Permittee must comply with all conditions of this permit and with all applicable requirements of Arizona air quality statutes and the air quality rules. Compliance with permit terms and conditions does not relieve, modify, or otherwise affect the Permittee's duty to comply with all applicable requirements of Arizona air quality statutes and the Maricopa County Air Pollution Control Regulations. Any permit non-compliance is grounds for enforcement action; for a permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. Noncompliance with any federally enforceable requirement in this Permit constitutes a violation of the Act. [This Condition is federally enforceable if the condition or requirement itself is federally enforceable and only locally enforceable if the condition or requirement itself is locally enforceable only.]

[County Rule 210 §§301.8 b(4) & 302.1h(1)]

2) The Permittee shall halt or reduce the permitted activity in order to maintain compliance with applicable requirements of Federal laws, Arizona laws, the County Rules, or other conditions of this Permit.

[County Rule 210 §302.1h(2)]

3) For any major source operating in a nonattainment area for any pollutant(s) for which the source is classified as a major source, the source shall comply with reasonably available control technology (RACT) as defined in County Rule 100.

[County Rule 210 §302.1(h)(6)] [SIP Rule 220 §302.1]

Compliance with the RACT requirements of this Permit Condition for nitrogen oxides (NO_x) shall not be required if a waiver granted by the Administrator under Section 182 (f) of the Clean Air Act is in effect.

B. COMPLIANCE CERTIFICATION REQUIREMENTS:

[County Rule 210 §305.1d]

The Permittee shall file a semiannual compliance certification with the Control Officer and also with the Administrator of the USEPA. The report shall certify compliance with the terms and conditions contained in this Permit, including emission limitations, standards, or work practices. The certification shall be on a form supplied or approved by the Control Officer and shall include each of the following:

1) The identification of each term or condition of the permit that is the basis of the certification;
2) The compliance status;
3) Whether compliance was continuous or intermittent;
4) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
5) Other facts as the Control Officer may require to determine the compliance status of the source.

The semiannual certification shall be filed at the same time as the semiannual monitoring report required by the Specific Condition section of these Permit Conditions.

C. COMPLIANCE PLAN: [County Rule 210 §305.1g]
Based on the certified information contained in the application for this Permit, the facility is in compliance with all applicable requirements in effect as of the release date of the proposed conditions for this Permit. The Permittee shall continue to comply with all applicable requirements and shall meet any applicable requirements that may become effective during the term of this permit on a timely basis. [This Condition is federally enforceable if the applicable requirement itself is federally enforceable and only locally enforceable if the applicable requirement itself is locally enforceable only.]

5. CONFIDENTIALITY CLAIMS: [County Rule 100 §402] [County Rule 200 §411]
Any records, reports or information obtained from the Permittee under the County Rules or this Permit shall be available to the public, unless the Permittee files a claim of confidentiality in accordance with ARS §49-487(c) which:

A. Precisely identifies the information in the permit(s), records, or reports which is considered confidential, and
B. Provides sufficient supporting information to allow the Control Officer to evaluate whether such information satisfies the requirements related to trade secrets or, if applicable, how the information, if disclosed, could cause substantial harm to the person's competitive position.
The claim of confidentiality is subject to the determination by the Control Officer as to whether the claim satisfies the claim for trade secrets.

A claim of confidentiality shall not excuse the Permittee from providing any and all information required or requested by the Control Officer and shall not be a defense for failure to provide such information.

If the Permittee submits information with an application under a claim of confidentiality pursuant to ARS 49-487 and County Rule 200, the Permittee shall submit a copy of such information directly to the Administrator of the USEPA.

[County Rule 210 §301.5]

6. CONTINGENT REQUIREMENTS:
NOTE: This Permit Condition covers activities and processes addressed by the CAA which may or may not be present at the facility. This condition is intended to meet the requirements of both Section 504(a) of the 1990 Amendments to the CAA, which requires that Title V permits contain conditions necessary to assure compliance with applicable requirements of the Act as well as the Acid Rain provisions required to be in all Title V permits.

A. ACID RAIN: [County Rule 210 §§302.1b(2) & 302.1f] [County Rule 371 §301]
1) Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated pursuant to Title IV of the CAA and incorporated pursuant to County Rule 371, both provisions shall be incorporated into this Permit and shall be enforceable by the Administrator.

2) The Permittee shall not allow emissions exceeding any allowances that the source lawfully holds pursuant to Title IV of the CAA or the regulations promulgated thereunder and incorporated pursuant to County Rule 371.
   a) No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program and incorporated pursuant to County Rule 371, provided that such increases do not require a permit revision pursuant to any other applicable requirement.
   b) No limit is placed on the number of allowances held by the Permittee. The Permittee may not, however, use allowances as a defense to non-compliance with any other applicable requirement.
   c) Any such allowance shall be accounted for according to the procedures established in regulations promulgated pursuant to Title IV of the CAA.
   d) All of the following prohibitions apply to any unit subject to the provisions of Title IV of the CAA and incorporated into this Permit pursuant to County Rule 371:
      (1) Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners or operators of the unit or the designated representative of the owners or operators.
      (2) Exceedances of applicable emission rates.
      (3) The use of any allowance prior to the year for which it was allocated.
      (4) Violation of any other provision of the permit.

B. ASBESTOS:
[40 CFR 61, Subpart M] [County Rule 370 §301.8 - locally enforceable only]
The Permittee shall comply with the applicable requirements of Sections 61.145 through 61.147 and 61.150 of the National Emission Standard for Asbestos and County Rule 370 for all demolition and renovation projects.

C. RISK MANAGEMENT PLAN (RMP): [40 CFR 68]
Should this stationary source, as defined in 40 CFR 68.3, be subject to the accidental release prevention regulations in 40 CFR Part 68, then the Permittee shall submit an RMP by the date specified in 40 CFR Section 68.10 and shall certify compliance with the requirements of 40 CFR Part 68 as part of the annual compliance certification as required by 40 CFR Part 70. However, neither the RMP nor modifications to the RMP shall be considered to be a part of this Permit.

D. STRATOSPHERIC OZONE PROTECTION: [40 CFR 82 Subparts E, F, and G]
If applicable, the Permittee shall follow the requirements of 40CFR 82.106 through 82.124 with respect to the labeling of products using ozone depleting substances.

If applicable, the Permittee shall comply with all of the following requirements with respect to recycling and emissions reductions:
1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
2) Equipment used during maintenance, service, repair, or disposal of appliances must meet the standards for recycling and recovery equipment in accordance with 40 CFR 82.158.
3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by a certified technician pursuant to 40 CFR 82.161.

If applicable, the Permittee shall follow the requirements of 40CFR Subpart G, including all Appendices, with respect to the safe alternatives policy on the acceptability of substitutes for ozone-depleting compounds.

7. DUTY TO SUPPLEMENT OR CORRECT APPLICATION: [County Rule 210 §301.6]

If the Permittee fails to submit any relevant facts or has submitted incorrect information in a permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, the Permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a proposed permit.

8. EMERGENCY EPISODES: [County Rule 600 §302] [SIP Rule 72.A.5. e, f & g]

If an air pollution alert, warning, or emergency has been declared, the Permittee shall comply with any applicable requirements of County Rule 600 §302.

9. EMERGENCY PROVISIONS: [County Rule 130 §§201 & 402]

An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that requires immediate corrective action to restore normal operation, and that cause the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

An emergency constitutes an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the requirements of this Permit Condition are met.

The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

A. An emergency occurred and that the Permittee can identify the cause or causes of the emergency;
B. At the time of the emergency, the permitted source was being properly operated;
C. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in this permit; and
D. The Permittee as soon as possible telephoned the Control Officer giving notice of the emergency and submitted notice of the emergency to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirement of County Rule 210. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

This provision is in addition to any emergency or upset provision contained in any applicable requirement.

10. EXCESS EMISSIONS: [County Rule 140 §§401 & 402[[locally enforceable only]

NOTE: This Permit Condition is based on a County Rule which has not been adopted into the State Implementation Plan and is therefore applicable only at the County level. There are reporting requirements associated with excess emissions. These requirements are contained in the Reporting section of the General Permit Conditions in a subparagraph called Excess Emissions. The definition of excess emissions can be found in County Rule 100 §200.

A. Emissions in excess of an applicable emission limitation contained in the Rules or in these Permit Conditions shall constitute a violation. For all situations that constitute an emergency as described in County Rule 130 §201, the requirements contained in County Rule 130 shall apply. In all other circumstances, it shall be an affirmative defense if the Permittee has complied with the reporting requirements of County Rule 140 §500 and these Permit Conditions in a timely manner and has demonstrated all of the following:

1) The excess emissions resulted from a sudden and unavoidable breakdown of the process equipment or the air pollution control equipment, resulted from unavoidable conditions during startup or shutdown, resulted from unavoidable conditions during an upset of operations, or greater or more extended excess emissions would result unless scheduled maintenance is performed;
2) The source's air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
3) Where repairs were required, such repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded and off-shift labor and overtime were utilized where practical to insure that such repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that such measures were impractical;
4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
5) All reasonable steps were taken to minimize the impact of the excess emissions on potential violations of ambient air quality standards;
6) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and
7) During the period of excess emissions, there were no measured violations of the ambient air quality standards established in County Rule 510 which could be attributed to the emitting source.

B. It shall be the burden of the Permittee to demonstrate, through submission of the data and information required by this Permit Condition that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of excess emissions.

11. FEES: [County Rule 200 §409] [County Rule 210 §§302.1i & §401]

The Permittee shall pay fees to the Control Officer pursuant to ARS 49-480(D) and County Rule 280.

12. MODELING: [County Rule 200 §407] [locally enforceable only]

Where the Control Officer requires the Permittee to perform air quality impact modeling, the Permittee shall perform the modeling in a manner consistent with the "Guideline on Air Quality Models (Revised)" (EPA-450/2-78-027R, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, July 1986) and "Supplement B to the Guideline on Air Quality Models" (U.S. Environmental Protection Agency, September 1990). Both documents shall be referred to hereinafter as "Guideline", and are adopted by reference. Where the person can demonstrate that an air quality impact model specified in the guideline is inappropriate, the model may be modified or another model substituted if found to be acceptable to the Control Officer.

13. MONITORING / TESTING:

A. The Permittee shall monitor, sample, or perform other studies to quantify emissions of regulated air pollutants or levels of air pollution that may reasonably be attributable to the facility if required to do so by the Control Officer, either by Permit or by order in accordance with County Rule 200 §309.

[County Rule 200 §309] [SIP Rule 41]

B. Except as otherwise specified in these Permit Conditions or by the Control Officer, the Permittee shall conduct required testing used to determine compliance with standards or permit conditions established pursuant to the County or SIP Rules or these Permit Conditions in accordance with County Rule 270 and the applicable testing procedures contained in the Arizona Testing Manual for Air Pollutant Emissions or other approved USEPA test methods.

[County Rule 200 §408] [County Rule 270 §§300 &d 400] [SIP Rule 27]

C. The Permittee may use equivalent test methods and procedures in lieu of those described in this paragraph if approved by the Control Officer.

[County Rule 270 §402]

D. The owner or operator of a permitted source shall provide, or cause to be provided, performance testing facilities as follows:

1) Sampling ports adequate for test methods applicable to such source.
2) Safe sampling platform(s).
3) Safe access to sampling platforms(s).
4) Utilities for sampling and testing equipment.

[County Rule 270 §405] [SIP Rule 42]

14. PERMITS:

A. BASIC: [County Rule 210 §302.1h(3)]

This Permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any Permit Condition.

B. DUST CONTROL PLAN REQUIREMENTS:

1) The following describe the permit applications with which a Dust Control Plan must be submitted. *(NOTE: If the Permittee engages in or allows any routine dust generating activities at the facility, the Permittee shall apply to have the*

routine dust generating activity covered as part of this Permit. Nonroutine activities, such as construction and revegetation, require a separate Earthmoving Permit that must be obtained from the Control Officer before the activity may begin.)

a) If the Permittee is required to obtain an Earthmoving Permit under Regulation II (Permits And Fees) of the County Rules, then the Permittee must first submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan before commencing any dust generating operation.

b) The Permittee must first submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan before commencing any routine dust generating operation.

[County Rule 310 §303.3] [SIP Rule 310 §303.3]

2) A Dust Control Plan shall not be required to play on a ballfield and/or for landscape maintenance. For the purpose of this Permit Condition, landscape maintenance does not include grading, trenching, nor any other mechanized surface disturbing activities.

[County Rule 200 §305] [County Rule 310 §303.4] [SIP Rule 310 §303.4]

3) Any Dust Control Plan shall, at a minimum, contain all the information described in Section 304 of Rule 310.

[County Rule 310 §304] [SIP Rule 310 §304]

4) Compliance with this section does not effect a source's responsibility to comply with the other standards of Rule 310 and these Permit Conditions. Failure to comply with the provisions of an approved Dust Control Plan or the work practice standards contained in Rule 310 §308 is deemed to be a violation of this Permit. Regardless of whether an approved Dust Control Plan is in place or not, the Permittee is still subject to all requirements of Rule 310 at all times. In addition, if the Permittee has an approved Dust Control Plan, the Permittee is still subject to all of the requirements of Rule 310, even if the Permittee is complying with the approved Dust Control Plan.

[County Rule 310 §303] [SIP Rule 310 §303]

5) The Permittee shall make revisions to any required Dust Control Plan when notified in writing by the Control Officer that implementation of the existing dust control plan allowed an exceedance of the standards established in Rule 310 §§301 or 302. The revised Dust Control Plan shall be submitted to the Control Officer within 3 working days of receiving the notice. During the time when the Dust Control Plan is being revised, the Permittee must still comply with the requirements of this Permit and Rule 310.

[County Rule 310 §305] [SIP Rule 310 §305]

C. PERMITS AND PERMIT CHANGES, AMENDMENTS AND REVISIONS:

[County Rule 200 §§301 & 308]
[County Rule 210 §§301.4a, b, c, & 400]

1) The Permittee shall comply with the Administrative Requirements of Section 400 of County Rule 210 for all changes, amendments and revisions at the facility for

any source subject to regulation under County Rule 200, shall comply with all required time frames, and shall obtain any required preapproval from the Control Officer before making changes. All applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision including information listed in County Rule 200 §308 and County Rule 210 §§301 & 302.3.

2) The Permittee shall supply a complete copy of each application for a permit, a minor permit revision, or a significant permit revision directly to the Administrator of the USEPA. The Control Officer may require the application information to be submitted in a computer-readable format compatible with the Administrator's national database management system.

[County Rule 210 §§303.1a, 303.2, 405.4, & 406.4]

3) While processing an application, the Control Officer may require the applicant to provide additional information and may set a reasonable deadline for a response.

[County Rule 210 §301.4.f]

4) No permit revision shall be required pursuant to any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

[County Rule 210 §302.1j]

D. POSTING:

1) The Permittee shall keep a complete permit clearly visible and accessible on the site where the equipment is installed.

[County Rule 200 §311] [SIP Rule 22F]

2) If a Dust Control Plan, as required by Rule 310, has been approved by the Control Officer, the Permittee shall post a copy of the approved Dust Control Plan in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise keep a copy of the Dust Control Plan available on site at all times.

[County Rule 310 §401] [SIP Rule 310 §401]

E. PROHIBITION ON PERMIT MODIFICATION: [County Rule 200 §310]

The Permittee shall not willfully deface, alter, forge, counterfeit, or falsify this permit.

F. RENEWAL: [County Rule 210 §§ 301 & 302]

1) The Permittee shall submit an application for the renewal of this Permit in a timely and complete manner. For purposes of permit renewal, a timely application is one that is submitted at least six months, but not more than 18 months, prior to the date of permit expiration. A complete application shall contain all of the information required by the County Rules including Rule 200 §308 and Rule 210 §§301 & 302.3.

[County Rule 210 §§301.2(a), 301.4a, b, c, d, h & 302.3]

2) The Permittee shall file all permit applications in the manner and form prescribed by the Control Officer. To apply for a permit renewal, the Permittee shall complete the "Standard Permit Application Form" and shall supply all information, including the information required by the "Filing Instructions" as shown in Appendix B of the County Rules, which is necessary to enable the Control Officer to make the determination to grant or to deny a permit which shall contain such terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of the CAA, ARS and County Rules.

[County Rule 200 §§308 & 309] [County Rule 210 §301.1]

3) The Control Officer may require the Permittee to provide additional information and may set a reasonable deadline for a response.

[County Rule 210 §301.4f]

4) If the Permittee submits a timely and complete application for a permit renewal, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied. This protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit, by the deadline specified by the Control Officer, any additional information identified as being needed to process the application.

[County Rule 200 §403.2] [County Rule 210 §§301.4f & 301.9]

G. REVISION / REOPENING / REVOCATION: [County Rule 210 §302.1h(3)]

This Permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit revision, revocation and reissuance, or termination or of a notification of planned changes or anticipated noncompliance does not stay any Permit Condition.

H. REVISION PURSUANT TO A FEDERAL HAZARDOUS AIR POLLUTANT STANDARD: [County Rule 210 §301.2c] [locally enforceable only]

If the Permittee becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the CAA, the Permittee shall, within 12 months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.

I. REQUIREMENTS FOR A PERMIT:

1) Air Quality Permit: Except as noted pursuant to the provisions in Sections 403 and 405 of County Rule 210, no source may operate after the time that it is required to submit a timely and complete application, except in compliance with a permit issued pursuant to County Rule 210. Permit expiration terminates the Permittee's right to operate. However, if a source submits a timely and complete application, as defined in County Rule 210 §301, for permit issuance, revision, or renewal, the source's failure to have a permit is not a violation of the County Rules until the Control Officer takes final action on the application. The Source's ability to operate without a permit as set forth in this paragraph shall be in effect from the date the application is determined to be complete until the final permit is issued. This protection shall cease to apply if, subsequent to the completeness

determination, the applicant fails to submit, by the deadline specified in writing by the Control Officer, any additional information identified as being needed to process the application. If a source submits a timely and complete application for a permit renewal, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the permit renewal has been issued or denied.

[County Rule 210 §301.9]

2) Earthmoving Permit:
(NOTE: If the Permittee engages in or allows any routine dust generating activities at the facility, the Permittee shall apply to have the routine dust generating activity covered as part of this Permit. Nonroutine activities, such as construction and revegetation, require a separate Earthmoving Permit that must be obtained from the Control Officer before the activity may begin.)

No person shall commence any earth moving operation or any dust generating operation without meeting the requirements of and obtaining any and all Earth Moving Equipment Permits and Permits to Operate required by County Rule 200. The provisions of this section shall not apply:

a) During emergency, life threatening situations or in conjunction with any officially declared disaster or state of emergency;
b) To operations conducted by essential service utilities to provide electricity, natural gas, oil and gas transmission, cable television, telephone, water, and sewerage during service outages and emergency disruptions;
c) To non-routine or emergency maintenance of flood control channels and water retention basins.
d) To vehicle test and development facilities and operations when dust is required to test and validate design integrity, product quality and/or commercial acceptance. Such facilities and operations shall be exempted from the provisions of this section only if such testing is not feasible within enclosed facilities.

[County Rule 310 §302] [SIP Rule 310 §302]

The Permittee shall not cause, commence, suffer, allow, or engage in any earthmoving operation that disturbs a total surface area of 0.10 acre or more without first obtaining a permit from the Control Officer. Permits shall not be required for earthmoving operations for emergency repair of utilities, paved roads, unpaved roads, shoulders, and/or alleys.

[County Rule 200 §305]

3) Burn Permit: The Permittee shall obtain a Permit To Burn from the Control Officer before conducting any open outdoor fire except for the activities listed in County Rule 314 §§302.1 and 302.2.

[County Rule 314] [County Rule 200 §306] [SIP Rule 314]

J. RIGHTS AND PRIVILEGES: [County Rule 210 §302.1h(4)]
This Permit does not convey any property rights nor exclusive privilege of any sort.

K. SEVERABILITY: [County Rule 210 §302.1g]

The provisions of this Permit are severable, and, if any provision of this Permit is held invalid, the remainder of this Permit shall not be affected thereby.

L. SCOPE:

The issuance of any permit or permit revision shall not relieve the Permittee from compliance with any Federal laws, Arizona laws, or the County or SIP Rules, nor does any other law, regulation or permit relieve the Permittee from obtaining a permit or permit revision required under the County Rules.

[County Rule 200 §308] [SIP Rule 22H]

Nothing in this permit shall alter or affect the following:

1) The provisions of Section 303 of the Act, including the authority of the Administrator pursuant to that section.
2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.
3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act.
4) The ability of the Administrator of the USEPA or of the Control Officer to obtain information from the Permittee pursuant to Section 114 of the Act, or any provision of State law.
5) The authority of the Control Officer to require compliance with new applicable requirements adopted after the permit is issued. [locally enforceable only]

[County Rule 210 §407.2]

M. TERM OF PERMIT: [County Rule 210 §§302.1a & 402]

This Permit shall remain in effect for no more than 5 years from the date of issuance.

N. TRANSFER: [County Rule 200 §404]

Except as provided in ARS 49-429 and County Rule 200, this permit may be transferred to another person if the Permittee gives notice to the Control Officer in writing at least 30 days before the proposed transfer and complies with the permit transfer requirements of County Rule 200 and the administrative permit amendment procedures pursuant to County Rule 210.

15. RECORDKEEPING:

A. RECORDS REQUIRED:

[County Rule 100 §501] [County Rule 310 §502] [SIP Rule 40 A]

The Permittee shall maintain records of all emissions testing and monitoring, records detailing all malfunctions which may cause any applicable emission limitation to be exceeded, records detailing the implementation of approved control plans and compliance schedules, records required as a condition of any permit, records of materials used or produced and any other records relating to the emission of air contaminants which may be requested by the Control Officer.

B. RETENTION OF RECORDS:

Unless a longer time frame is specified by the Rules or these Permit Conditions, the Permittee shall retain information and records required by either the Control Officer or these Permit Conditions as well as copies of summarizing reports recorded by the

Permittee and submitted to the Control Officer for 5 years after the date on which the pertinent report is submitted.

[County Rule 100 §504] [SIP Rule 40 C]

The Permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or physical records for continuous monitoring instrumentation, and copies of all reports required by the permit.

[County Rule 210 §§302.1d (2) and 305.1 b (2)]

C. MONITORING RECORDS: [County Rule 210 §§302.1d(1) & 305.1b(1)]
Records of any monitoring required by this Permit shall include the following:
1) The date, place as defined in the permit, and time of sampling or measurements;
2) The date(s) analyses were performed;
3) The company or entity that performed the analyses;
4) The analytical techniques or methods used;
5) The results of such analyses; and
6) The operating conditions as existing at the time of sampling or measurement

D. RIGHT OF INSPECTION OF RECORDS: [County Rule 100 §106] [SIP Rule 40 D]
When the Control Officer has reasonable cause to believe that the Permittee has violated or is in violation of any provision of County Rule 100 or any County Rule adopted under County Rule 100, or any requirement of this permit, the Control Officer may request, in writing, that the Permittee produce all existing books, records, and other documents evidencing tests, inspections, or studies which may reasonably relate to compliance or noncompliance with County Rules adopted under County Rule 100. No person shall fail nor refuse to produce all existing documents required in such written request by the Control Officer.

16. REPORTING:
NOTE: See the Permit Condition titled Certification Of Truth, Accuracy and Completeness in conjunction with reporting requirements.

A. ANNUAL EMISSION INVENTORY REPORT:

[County Rule 100 §505][SIP Rule 40 B]

Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall complete and shall submit to the Control Officer an annual emissions inventory report. The report is due by April 30 or 90 days after the Control Officer makes the inventory form(s) available, whichever occurs later.

The annual emissions inventory report shall be in the format provided by the Control Officer.

The Control Officer may require submittal of supplemental emissions inventory information forms for air contaminants under ARS §49-476.01, ARS §49-480.03 and ARS §49-480.04.

B. DATA REPORTING: [County Rule 100 §502]

When requested by the Control Officer, the Permittee shall furnish to the Maricopa County Air Quality Division (Division hereafter) information to locate and classify air contaminant sources according to type, level, duration, frequency and other characteristics of emissions and such other information as may be necessary. This information shall be sufficient to evaluate the effect on air quality and compliance with the County or SIP Rules. The Permittee may subsequently be required to submit annually, or at such intervals specified by the Control Officer, reports detailing any changes in the nature of the source since the previous report and the total annual quantities of materials used or air contaminants emitted.

C. DEVIATION REPORTING:

[County Rule 210 §§302.1e & 305.1c]

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions. Unless specified otherwise elsewhere in these Permit Conditions, an upset for the purposes of this Permit Condition shall be defined as the operation of any process, equipment or air pollution control device outside of either its normal design criteria or operating conditions specified in this Permit and which results in an exceedance of any applicable emission limitation or standard. The Permittee shall submit the report to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days from knowledge of the deviation. The report shall contain a description of the probable cause of such deviations and any corrective actions or preventive measures taken. In addition, the Permittee shall report within a reasonable time of any long-term corrective actions or preventative actions taken as the result of any deviations from permit requirements.

All instances of deviations from the requirements of this Permit shall also be clearly identified in the semiannual monitoring reports required in the Specific Condition section of these Permit Conditions.

D. EMERGENCY REPORTING: [County Rule 130 §402.4]

(NOTE: Emergency Reporting is one of the special requirements which must be met by a Permittee wishing to claim an affirmative defense under the emergency provisions of County Rule 130. These provisions are listed earlier in these General Conditions in the section titled "Emergency Provisions". Since it is a form of deviation reporting, the filing of an emergency report also satisfies the requirement of County Rule 210 to file a deviation report.)

The Permittee shall, as soon as possible, telephone the Control Officer giving notice of the emergency and submitted notice of the emergency to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

E. EMISSION STATEMENTS REQUIRED AS STATED IN THE ACT:

[County Rule 100 §503]

Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall provide the Control Officer with an emission statement, in such form as the Control Officer prescribes, showing measured actual emissions or estimated actual emissions of NO_x and volatile organic compounds (VOC) from that source. At a

minimum the emission statement shall contain all information contained in the "Guidance on Emission Statements" document as described in the USEPA's Aerometric Information Retrieval System (AIRS) Fixed Format Report (AFP 644). The statement shall contain emissions for the time period specified by the Control Officer. Statements shall be submitted annually.

F. EXCESS EMISSIONS REPORTING:

[County Rule 140 §§500] [locally enforceable only]

(NOTE: This reporting subsection is associated with the requirements listed earlier in these General Conditions in the section titled "Excess Emissions".)

1) Excess emissions shall be reported as follows:
   a) The Permittee shall report to the Control Officer any emissions in excess of the limits established either by the Rules or these Permit Conditions. The report shall be in two parts as specified below:
      (1) Notification by telephone or facsimile within 24 hours of the time when the owner or operator first learned of the occurrence of excess emissions including all available information from paragraph F. 1) b) below of this Permit Condition.
      (2) Excess emissions report containing all the information described in paragraph F. 1) b) below of this Permit Condition within 72 hours of the telephone notification pursuant to paragraph F. 1) a) (1) above of this Permit Condition.
   b) The excess emissions report shall contain the following information:
      (1) The identity of each stack or other emission point where the excess emissions occurred.
      (2) The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions.
      (3) The time and duration or expected duration of the excess emissions.
      (4) The identity of the equipment from which the excess emissions emanated.
      (5) The nature and cause of such emissions.
      (6) The steps taken if the excess emissions were the result of a malfunction to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction.
      (7) The steps that were or are being taken to limit the excess emissions. If this Permit contains procedures governing source operation during periods of startup or malfunction and the excess emissions resulted from startup or malfunction, the report shall contain a list of the steps taken to comply with the Permit procedures.
2) In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the Permittee provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification that meets the criteria of Section F. 1) of this Permit Condition.

G. OTHER REPORTING: [County Rule 210 §302.1h (5)]

The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking and reissuing this permit, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by this Permit. For information claimed to be confidential, the Permittee shall furnish a copy of such records directly to the Administrator along with a claim of confidentiality as covered elsewhere in these Permit Conditions.

17. RIGHT TO ENTRY AND INSPECTION OF PREMISES:

[County Rule 100 §105] [County Rule 210 §305.1f] [SIP Rule 43]

The Control Officer during reasonable hours, for the purpose of enforcing and administering County Rules, or any provision of the ARS relating to the emission or control prescribed pursuant thereto, may enter every building, premises, or other place, except the interior of structures used as private residences. Every person is guilty of a petty offense under ARS §49-488 who in any way denies, obstructs or hampers such entrance or inspection that is lawfully authorized by warrant.

The Permittee shall allow the Control Officer or his authorized representative, upon presentation of proper credentials and other documents as may be required by law, to:

A. Enter upon the Permittee's premises where a source is located or emissions-related activity is conducted, or where records are required to be kept pursuant to the conditions of the permit;
B. Have access to and copy, at reasonable times, any records that are required to be kept pursuant to the conditions of the permit;
C. Inspect, at reasonable times, any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required pursuant to this permit;
D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
E. To record any inspection by use of written, electronic, magnetic, and photographic media.

[Locally enforceable only]

SPECIFIC CONDITIONS:

18. ALLOWABLE EMISSION LIMITATIONS

The allowable emission limits of these Permit Conditions are based upon the facility as currently permitted. They do not provide for facility changes or changes in the method of operation that would otherwise trigger applicable requirements including New Source Review, Prevention of Significant Deterioration or Best Available Control Technology.

A. Facility - Wide Requirements:

1) Facility Equipment

The major emitting equipment to be constructed at the facility is described in Appendix A. The Permittee shall not deviate from the equipment described in Appendix A.

[County Rule 240, §301]

2) Facility Emission Limits

In addition to emission limits expressed elsewhere in this Permit, the Permittee shall not cause, allow, or permit emissions to exceed the hourly and rolling average limits shown in Tables 1, 2, 3, 4, and 5. *[Refer to the Notes located after Table 5 at the end of this subsection and Appendix A for explanation of terms.]*

Table 1
Rolling 12-month Average Limits

	Rolling 12-month Average Emission Limits (tons per year)				
Device	**SO_2**	**NO_x**	**CO**	**PM_{10}**	**VOC**
Combined Cycle System #1	21.0	111.0 Note (p)	336.5	136.0	60.0
Combined Cycle System #2	21.0	111.0 Note (p)	336.5	136.0	60.0
Auxiliary Boiler	0.01	1.6	2.0	0.1	0.2
Cooling Tower	NA	NA	NA	19.0	NA

[County Rule 240, §308.1(a), (d), (e)]

Table 2
Hourly Emission Limits During Periods When a Combined Cycle System Operates in Conditions Other than Startup or Shutdown

	Hourly Emission Limits During Periods When a Combined Cycle System Operates in Conditions Other than Startup or Shutdown (pounds per hour)				
Device	**SO_2**	**NO_x**	**CO**	**PM_{10}**	**VOC**
Combustion Turbine #1, Duct Burners OFF	4.00	20.2 Note (p)	34.0	27.0	3.0
Combustion Turbine #1, Duct Burners ON	5.25	24.0 Note (p)	62.0	31.0	12.8
Combustion Turbine #2, Duct Burners OFF	4.00	20.2 Note (p)	34.0	27.0	3.0
Combustion Turbine #2, Duct Burners ON	5.25	24.0 Note (p)	62.0	31.0	12.8

[County Rule 240, §308.1(a), (d), (e)][40 CFR 60.43a(b), (g)][40 CFR 60.333(a)]

Table 3
Hourly Emission Limits for a Single Combined Cycle System During Periods of Startup or Shutdown

	Hourly Emission Limits for a Combined Cycle System During Startup or Shutdown (pounds per hour)		
Device	**NO_x**	**CO**	**VOC**
Combustion Turbine #1	102.5	594.0	40.0
Combustion Turbine #2	102.5	594.0	40.0

[County Rule 240, §308.1(a), (d), (e)]

Table 4
Hourly Emission Limits for the Auxiliary Boiler

	Hourly Emission Limits (pounds per hour)				
Device	**SO_2**	**NO_x**	**CO**	**PM_{10}**	**VOC**
Auxiliary Boiler	0.03	3.11	3.95	0.26	0.42

[County Rule 240, §308.1(a), (d), (e)]

Table 5
Additional Concentration or Rate Emission Limits

	Concentration and Rate Limits					
Device	NO_x	**CO**	**PM_{10} Solids (Filterable) Alone**	**PM_{10} Total (Filterable plus Condensable)**	**VOC**	**Other**
Each Combustion Turbine #1 or #2 Exhaust when Operating in Conditions Other than Startup	NS	NS	9 lbs/hr	27.0 lbs/hr	NS	NS
Each Duct Burner Set #1 or #2 Exhaust	NS	NS	0.03 lb/mmBtu	NS	NS	NS
Each Combined Cycle System #1 or #2 Exhaust	3 ppm 3-hour rolling average Note (p)	20 ppm with Duct Burners ON and 10 ppm with Duct Burners OFF, 3-hour rolling average	NS	NS	1.4 ppm 3-hour rolling average	**Ammonia** 10 ppm 24-hour rolling average

[County Rule 240, §308.1(a), (d), (e)] [40 CFR 60.42a(a)(1)] [40 CFR 60.44a(d)(1)] [40 CFR 60.332(a)(1)]

The following Notes apply to Tables 1, 2, 3, 4, and 5.

a) NA (Not Applicable) means that the device does not emit the indicated pollutant.

b) NS (Not Specified) means that no additional Concentration or Rate limit is specified for that pollutant and device in Table 5.

c) Startup is defined as the period between when the Combined Cycle Systems are initially started until the temperature of the Combustion Turbines exhaust prior to entering the Selective Catalytic Reduction systems reaches 600 degrees Fahrenheit and the electrical load of the Combined Cycle System increases to above 60% of nameplate capacity.

d) Shutdown is defined as the period beginning when the electrical load of a Combined Cycle System drops below 60% of nameplate capacity and ending when combustion has ceased.

e) The rolling twelve month limits shall be calculated monthly using the data from the most recent calendar months, with a new 12-month period beginning on the first day of each calendar month.

f) NO_x emissions during normal operations shall be calculated in accordance with 40 CFR Part 75, Appendix F and Appendix D, except for demonstrating compliance with 40 CFR Part 60 Subparts Da and GG.

[40 CFR 75 Appendix F]

g) To demonstrate compliance with 40 CFR 60 Subpart Da, NO_x emissions shall be calculated as required by 40 CFR 60.47a, unless a waiver from exhaust flow monitoring is granted by the Administrator and approved by the Control Officer, in which case the 40 CFR Part 75, Appendix F method shall be used, except that the data used to meet the requirements of
40 CFR 60.49a shall not include data substituted using the missing data procedures in Subpart D of 40 CFR Part 75 , nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75.

[40 CFR 60.47a(c)(2)]

h) To demonstrate compliance with 40 CFR Subpart GG, NO_x emissions shall be calculated as required by 40 CFR 60.335(c)(1) unless the Combustion Turbines are installed with a Mark V or functionally equivalent controller programmed with an algorithm acceptable to the Administrator and Control Officer that continuously corrects for variations in ambient humidity, temperature, and pressure yielding a relatively constant NO_x concentration when corrected to 15 percent oxygen, in which case the CEM data can be used without the 40 CFR 60.335(c)(1) correction.

[40 CFR 60.335(c)(1)]

i) In the event that the NO_x or CO analyzer measuring startup/shutdown emissions is not operational or cannot reliably document emissions, startup/shutdown emissions shall be calculated by monitoring the total elapsed time during the startup/shutdown sequence and multiplying by the appropriate startup/shutdown emission rates in Table 3. An alternative emission rate can be used if such rate is demonstrated to the satisfaction of the Control Officer to be more representative of startup/shutdown emissions.

j) VOC and PM_{10} emissions during normal operations and startup/shutdown periods from the Combined Cycle Systems and Auxiliary Boiler shall be calculated using the emission factors contained in the Permit Application dated April 2000 unless an alternative emission rate can be demonstrated to the satisfaction of the Control Officer to be more representative of emissions.

k) PM_{10} emissions from the Cooling Tower shall be calculated from the following equation:

PM_{10} Emissions (tons/yr) = Total Recirculation Rate(gallons/minute) *
TDS Concentration (milligrams/liter) *
1.096E-08;

Where the value 1.096E-08 is a conversion factor for cooling tower drift rate (0.001%), grams to tons, liters to gallons, minutes to year, and one half of total particulate as PM_{10}; and the Total Recirculation Rate is the total for all ten cells.

l) SO_2 emissions shall be calculated from fuel usage during normal operations and startup/shutdown and the sulfur content of the fuel as determined by Condition 20.H of this permit.

m) The rolling 3-hour average CO limit in Table 5 shall be calculated in proportion to the time that the Duct Burners are ON. For example, if in a rolling 3-hour period, the Duct Burners were ON for 1 hour and OFF for 2 hours, the permit limit is 13.4 ppm (1/3 x 20 + 2/3 x 10 = 13.4) for that period.

n) Unless otherwise stated, the PM_{10} emission limits include both solid (filterable) and condensable particulate matter. Filterable PM_{10} is measured with 40 CFR Part 60 Appendix A Method 5.

o) Concentration limits are parts per million by volume corrected to 15% oxygen on a dry basis.

p) Emission limits may be lowered. Refer to Condition 19.F.1.

q) When multiple or alternative limits apply, the most stringent governs.

3) Offsite Sulfur Oxides limits:

The Permittee shall not emit into the ambient air any sulfur oxide in such manner and amounts as to result in ground level concentrations at any place beyond the premises on which the source is located exceeding the limits shown in Table 6:

Table 6
Sulfur Dioxide Ambient Concentration Limits

Concentration of Sulfur Dioxide (ug/cubic m)	Averaging Time (hours)
850	1
250	24
120	72

[SIP Rule 32 F]

4) Particulate Matter Limits (General):

The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel from any emissions unit in excess of the amounts calculated by the following equation:

$E = 1.02\ Q^{0.769}$ where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

Q= the heat input in million Btu per hour.

[ARS §49-106, State Rule R18-2-719.C.1 (R9-3-519.C.1), SIP Rule 31(H)]

5) Opacity Limits

The Permittee shall not discharge into the ambient air from any single source of emissions any air contaminant other than condensed water containing no more than analytical trace amounts of other chemical elements or compounds, in excess of 20 percent opacity, except the following:

a) Startup and Shutdown: Visible emissions exceeding the opacity standards for short periods of time resulting from startup, shutdown, soot blowing or unavoidable combustion irregularities which do not exceed three minutes in length shall not constitute a violation provided that the Control Officer finds that adequate control technology has been applied.

b) Emergencies: Unavoidable combustion irregularities which exceed three minutes shall not constitute a violation of these Permit Conditions providing the owner or operator demonstrate to the Control Officer's satisfaction that an emergency exists in accordance with County Rule 130 §201.

[County Rule 300 §§ 301, 302.1,2]

Except as otherwise provided in Regulation I, Rule 4, Exceptions, the opacity of any plume or effluent from any source of emissions, other than uncombined water, shall not be greater than 40 percent opacity as determined by Reference Method 9 in the Arizona Testing Manual.

[SIP Rule 30]

B. Emission Limitations For The Diesel Fire Pump Engine and Back-up Generator:

The Permittee shall not cause, allow or permit the emissions from either the diesel fire pump engine or the back-up generator to exceed 20 percent opacity, 3-minute average, except for short periods of time resulting from startup, shutdown, or unavoidable combustion irregularities which do not exceed three minutes in length.

[County Rule 300 §§301, 302]

19. OPERATIONAL REQUIREMENTS

A. Facility – Wide Operational Requirements:

1) The Permittee shall combust only pipeline quality natural gas with a sulfur content of 0.0075 grains per dry standard cubic foot in all devices except the diesel fire pump engine and back-up generator, which shall burn only commercially available diesel fuel with sulfur content of 0.05 percent by weight or less.

[County Rule 240 §308.1(a), (d), (e)] [County Rule 320 §306.4] [40 CFR 60.333(b)]

2) The Permittee shall not emit gaseous or odorous air contaminants from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution.

[County Rule 320 §300] [locally enforceable only]

3) Materials including, but not limited to, solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizer and manure shall be processed, stored, used and transported in such a manner and by such means that they will not unreasonably evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices or equipment shall be mandatory.

[County Rule 320 § 302] [locally enforceable only]

4) Where a stack, vent or other outlet is at such a level that air contaminants are discharged to adjoining property, the Control Officer may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet to a degree that will adequately dilute, reduce or eliminate the discharge of air contaminants to adjoining property.

[County Rule 320 § 303] [locally enforceable only]

B. Operational Requirements for the Combined Cycle Systems:

Each Combined Cycle System shall operate such that the total combined hours in both the startup and shutdown modes for each system does not exceed 700 hours per year, calculated on a rolling 12 calendar month basis, and 10 hours per calendar day. For purposes of this Permit Condition, startup and shutdown are as defined in Notes (c) and (d) after Table 5 in Permit Condition 18.A.2.

[County Rule 240 §308.1(a), (d), (e)]

C. Operational Requirements for the Auxiliary Boiler:

The Permittee shall operate the auxiliary boiler less than 1000 hours per year.

[County Rule 240 §308.1(a), (d), (e)]

D. Operational Requirements for the Cooling Tower:

The cooling tower shall at all times be equipped and maintained with high efficiency drift eliminators certified by the cooling tower vendor to achieve less than 0.001 percent drift. The total dissolved solids (TDS) content of the cooling water in the cooling tower shall not contain more than 12,000 milligrams per liter (mg/l) TDS.

[County Rule 240 §308.1(a), (d), (e)]

E. Operational Requirements for the Diesel Fire Pump Engine and Back-up Generator Engine:

1) The Permittee shall operate the Diesel Fire Water Pump Engine only for emergency conditions or routine maintenance checks.
2) The Permittee shall operate the Diesel Back-up Generator only for emergency conditions or routine maintenance checks.

[County Rule 240 §308.1(a), (d), (e)]

F. Operational Requirements for the Selective Catalytic Reduction Emission Control Systems

1) The Permittee shall install, operate, and maintain a Selective Catalytic Reduction (SCR) system as part of each Combined Cycle System. The SCR system shall be designed and installed to achieve a 2.5 ppm NOx emission concentration, and the Permittee shall provide evidence of such design to the Control Officer prior to installation. During the first two years of commercial operation, the NOx emission limit shall be 3.0 ppm on a 3-hour rolling average basis and the annual and hourly mass emission rates of NOx shall be as stated in Tables 1 and 2 and the NOx emission limit shall be as stated in Table 5 of this Permit. If, after the first two years of commercial operation, it can be shown that continual compliance can be demonstrated at levels between 2.5 and 3.0 ppm (not including startups/shutdowns and malfunctions, and considering the differences between normal operations and normal operations with duct burner firing on), then the NOx emission limit in Table 5 will be lowered to the demonstrated compliance concentration between 2.5 and 3.0 ppm for normal operations and normal operations with duct burner firing on, and the mass emission rate limits in Tables 1 and 2 shall be lowered proportionately to the reduction in emission concentration.
2) To ensure that the SCR system is properly operated to achieve the design control rate of 2.5 ppm NOx during the first two years of commercial operation, the equivalent anhydrous ammonia injection rate shall not be less than the value calculated as described in Appendix D of this Permit, measured by the ammonia flowmeter required in Condition 20.J. After the initial two year period, the final NOx limit shall be determined, and the minimum ammonia injection rate monitoring requirement shall no longer apply.
3) The Permittee shall submit an approvable Operations and Maintenance (O&M) plan to the Department for each SCR system required by these Permit Conditions. The plans shall be in a format acceptable to the Department and shall specify the procedures used to maintain the SCR system. The O&M plan shall be submitted within 30 days after the equipment covered has been started up.
4) The Permittee shall at all times comply with the currently approved version of the O&M Plan.
5) The SCR control system shall be designed so it will not inject ammonia into the SCR system when the inlet temperature to the catalyst is less than the Minimum Catalyst Temperature to be established as part of the O&M Plans.

[County Rule 210 §302.1(c)(1) and §406]

G. Operational Requirements for the Continuous Emissions Monitoring Systems

1) The CEMS shall meet or exceed all applicable design, installation, operational, quality assurance, and all other applicable requirements of 40 CFR Parts 60 and 75.
2) The fuel flow monitor shall meet or exceed specifications contained in the current (as of July, 2000) American Gas Association Report Number 3.
3) The Permittee shall ensure that the CEMS are in operation and monitoring unit emissions at all times that the Combined Cycle Systems combust any fuel except during periods of calibration, quality assurance, preventive maintenance, repair, back-ups of data from the data acquisition and handling system, or recertification. Malfunctions shall be recorded and reported as required under 40 CFR Part 60 and Part 75.

4) The Permittee shall ensure that the design, installation, operation, maintenance, O&M/QA Plan(s), and on-site spare parts inventory are sufficient to ensure that the CEMS meet the data capture requirements of Permit Condition 20.I and 40 CFR Parts 60 and 75.
5) The Permittee shall submit an approvable Operations and Maintenance (O&M) plan to the Department for each Continuous Emissions Monitoring System (CEMS) required by these Permit Conditions. The plans shall be in a format acceptable to the Department and shall specify applicable operating parameters necessary to ensure continuous and accurate emissions monitoring. The O&M plan shall be submitted within 30 days after the equipment covered has been started up.
6) The Permittee shall submit an approvable Quality Assurance Plan (QAP) to the Department for each CEMS required by these Permit Conditions. The plans shall be in a format acceptable to the Department. If the QAP plan has not been approved as part of the application for this permit, then the QAP shall be submitted within 30 days after the equipment covered has been started up. The Permittee shall at all times comply with the QAP.
7) A combined O&M Plan and Quality Assurance Plan for both CEMS may be submitted.
8) The Permittee shall at all times comply with the currently approved version of the O&M and QA Plans.
9) Within 90 days after commencement of commercial operations (as defined by 40 CFR 72.2), the Permittee shall certify the CEMS with a Relative Accuracy Test Audit (RATA), linearity check, cylinder gas audit (CGA), bias check, 7-day calibration error check, and cycle time check.
10) The Permittee shall at least annually conduct a RATA and bias check. The Permittee shall at least quarterly conduct linearity checks and cylinder gas audits (CGA). The Permittee shall at least daily conduct calibration error and drift checks. More frequent audits and checks shall be conducted as required by 40 CFR Parts 60 and 75.
11) The Permittee shall ensure that all calibration gases (including zero gases) are certified and current at all times.
12) The Permittee shall re-calibrate any CEMS after any maintenance activity that could affect the system calibration and shall re-certify as required by and within the time periods required by 40 CFR 75.20(b) whenever the Permittee makes a replacement, modification, or change that may significantly affect the ability of the system to accurately measure or record emissions.
13) The Permittee shall develop and implement daily, monthly, quarterly, and annual maintenance checklists to ensure proper operation and accuracy of the CEMS. The checklists will be established as part of the O&M and QA Plans.
14) The Permittee shall maintain records of all certifications, calibrations, testing, maintenance (including completed maintenance checklists), and repairs made to the CEMS.

[County Rule 210 §302.1(c)(1)][40 CFR 60 Subparts Da and GG][40 CFR 75 Subparts A, B, C, Appendix A, Appendix B]

20. MONITORING/RECORDKEEPING REQUIREMENTS

A. The Permittee shall hourly monitor and record the hours of operation and operating mode (startup, shutdown, or normal) of each Combined Cycle System; the Combined Cycle System exhaust temperature prior to entering the Selective Catalytic Reduction System; the amount of natural gas combusted in each of the Combined Cycle Systems, and the electrical energy output of each Combined Cycle System. The Permittee shall monthly

calculate the twelve-month total hours of operation in each mode for each Combined Cycle System.

[County Rule 210 §302.1(c)(1)]

B. The Permittee shall monitor and record the hours of operation and monthly determine the daily amount of natural gas combusted in the Auxiliary Boiler. The Permittee shall monthly calculate the twelve-month total hours of operation.

[County Rule 210 §302.1(c)(1)][40 CFR 60.48c(g)]

C. The Permittee shall record the actual hours of operation and the reason for operation of the diesel fire water pump engine and the diesel back-up generator and the nature of the emergency or maintenance check that caused the engines to be used. The Permittee shall monthly calculate the twelve-month total hours of operation.

[County Rule 210 §302.1(c)(1)]

D. Within 90 days after commencement of commercial operation as defined by 40 CFR 72.2, the Permittee shall install, calibrate, certify, and operate a continuous emission monitor for each of the Combined Cycle System exhaust stacks to continuously measure carbon monoxide, oxides of nitrogen, and oxygen content of the exhaust stream in accordance with 40 CFR 60 Subpart Da and 40 CFR 75 requirements. Hourly average, rolling three-hour, and rolling 24-hour average values shall be continuously recorded.

[County Rule 210 §302.1(c)(2)][40 CFR 60 Subpart Da][40 CFR Part 75]

E. The continuous emission monitors must obtain valid data for at least 18 of every 24 hours in at least 22 of every 30 consecutive days of operation.

[County Rule 210 §302.1(c)(2), County Rule 360, 40 CFR 60 Subpart Da, §60.47a(f)]

F. Within 90 days after the commencement of commercial operations as defined by 40 CFR 72.2, the Permittee shall install, calibrate, certify, and operate natural gas fuel flow meters on each fuel line to monitor the unit-specific fuel flow to the Combined Cycle Systems.

[County Rule 210 §302.1(c)(2)][40 CFR Part 75]]

G. The Permittee shall install, calibrate, certify, and operate a continuous flow monitoring system and record the output of the system for measuring the flow of exhaust gases discharged to the atmosphere from the Combined Cycle System, unless exempted by the Administrator and approved by the Control Officer.

[County Rule 210 §302.1(c)(2)][40 CFR 60 Subpart Da][40 CFR 60.13]

H. The Permittee shall monitor for compliance with the sulfur dioxide limits of Tables 5 and 6 of this permit by obtaining and recording the sulfur content of the pipeline quality natural gas used in the Combined Cycle Systems using the following custom monitoring schedule:
   1) The Permittee shall monitor sulfur content of the pipeline quality natural gas at least once every calendar quarter.
   2) If at any time a fuel sulfur analysis indicates noncompliance with the fuel sulfur limit in Condition 19.A.1 of this Permit, the Permittee shall notify the Administrator and the Department of such excess emissions within one week of the analysis.

3) In the event of such noncompliance, the Permittee shall conduct fuel sulfur monitoring weekly until notified by the Administrator and the Department that less frequent monitoring is acceptable.
4) The Permittee shall determine compliance with the sulfur content limit in Condition 19.A.1 of this Permit by using measurement methods ASTM Method D172-80, ASTM Method D3031-81, ASTM Method D3246-81, or ASTM Method D4084-82 either at the site or upstream or downstream of the site. If the applicable ranges of these ASTM methods are not adequate to measure the levels of sulfur, dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator and the Control Officer.

[County Rule 210 §302.1(c)(2)][40 CFR 60.335(d), (e), §334(b)(2)]

I. The Permittee shall obtain and record the Gross Caloric Value of the natural gas used in the Combined Cycle Systems and the Auxiliary Boiler as required by 40 CFR Part 75, Appendix D at least as frequently as required by 40 CFR Part 75, Appendix D and Appendix G.

[County Rule 371] [40 CFR 75]

J. Within 90 days after the commencement of commercial operations as defined by 40 CFR 72.2, the Permittee shall install, certify, and operate on each SCR system monitors to measure the ammonia injection rate. The flow meters will be sampled by a data acquisition system at a frequency of no less than once every 15 minutes and averaged into rolling 24 hours periods. These data will be used to verify compliance with the ammonia emission limits of Table 5 and the emissions testing requirements of Table 7.

[County Rule 210 §302.1(c)(1)]

K. The Permittee shall monthly inspect the Wet Cooling Tower drift eliminators for proper installation, maintenance, and operation. The results of the inspection shall be recorded in a facility log.

[County Rule 210 §302.1(c)(2)]

L. The Permittee shall daily monitor and record the conductivity of the cooling tower water and shall monthly monitor and record the Total Dissolved Solids (TDS) content of the cooling tower water.

[County Rule 210 §302.1(c)(1)]

M. The Permittee shall monthly conduct a facility walk-through and observe visible emissions from each Combined Cycle System exhaust stack, the Auxiliary Boiler, the diesel-fueled Fire Water Pump Engine, and the diesel-fueled Back-up Generator. The Permittee shall log the visual observations, including the date and time when that reading was taken, results of the reading, name of the person who took the reading and any other related information.

[County Rules 300, 210 §302.1(c)(1) and SIP Rule 30]

N. If visible emissions are observed from any device capable of emitting any air contaminant other than condensed water containing no more than analytical trace amounts of other chemical elements or compounds; the Permittee shall obtain an opacity reading conducted in accordance with EPA Reference Method 9 by a certified visible emissions (VE) reader. This reading shall be taken within 3 days of the observance of visible emissions and taken

weekly thereafter during each week that the unit is in operation until there are no visible emissions. If the problem is corrected before three days has passed, and no emissions are visible, the Permittee shall not be required to conduct the certified reading. The Permittee shall log the visual observations, including the date and time when that reading was taken, results of the reading, name of the person who took the reading and any other related information.

[County Rule 210 §302.1(c)(1)] [SIP Rule 31]

O. Opacity shall be determined by observations of visible emissions conducted in accordance with 40 CFR Part 60 Appendix A, Method 9, except opacity of visible emissions from intermittent sources as defined by County Rule 300 §201. Opacity of visible emissions from intermittent sources shall be determined by observations conducted in accordance with 40 CFR Part 60 Appendix A, Method 9, except that at least 12 rather than 24 consecutive readings shall be required at 15-second intervals for the averaging time.

[County Rule 300 §§501, 502][locally enforceable only]

P. The Permittee shall monitor for compliance with the particulate matter emissions limits of the permit by taking a visual emission observation of the stack emissions from each Combined Cycle System during each week of operation that the equipment was used more than 10 hours. If emissions are visible, the Permittee shall obtain an opacity reading conducted in accordance with 40 CFR Part 60 Appendix A, Method 9 by a certified reader. This reading shall be taken within 3 operating days of the visible emission and taken thereafter weekly for each week when operations occur until there are no visible emissions. If the condition causing the visible emissions is eliminated before three days have passed, and no emissions are visible, the Permittee shall not be required to conduct the certified reading. If the visible emissions are present, the Control Officer may require emissions testing by other approved Reference Methods such as 40 CFR 60 Appendix A Method 5 to demonstrate compliance with the particulate matter emission limits of these Permit Conditions.

For purposes of these Permit Conditions, a certified visible emissions reader shall mean an individual who, at the time the reading is taken, is certified according to the County Rule Appendix C, Section 3.4.

[County Rule 210 §302.1.c(2) and SIP Rule 31]

Q. The Permittee shall maintain a log of complaints of odors detected off-site. The log shall contain a description of the complaint, date and time that the complaint was received, and if given, name and/or phone number of the complainant. The logbook shall describe what actions were performed to investigate the complaint, the results of the investigation, and any corrective actions that were taken.

[SIP Rule 32][County Rules 320 and 210 §302.1]

R. The Permittee shall maintain a file of all measurements as required by County Rule 210 §302.1.d, including continuous emission monitoring system emission records; operating parameter records; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 75 Subpart F and 40 CFR 60.48c(i) recorded in a permanent form for at least five years.

[40 CFR 60.48c(i)][40 CFR Part 75 Subpart F][County Rules 210 and 371]

S. The Permittee shall keep all the records of the fuel supplier certification for the diesel fuel being combusted for at least five years. The supplier certification shall include:
   1) the name of the supplier,
   2) the sulfur content of the fuel,
   3) the method used to determine the sulfur content of the fuel,
   4) the date that the fuel was delivered to the site, and
   5) the date that the fuel was sampled for sulfur content.

[County Rules 320, 210 §302.1.c and SIP Rule 32]

T. In addition to summary information provided in the Compliance Report submitted under Condition 21.D, the Permittee shall maintain on site at least the following information that demonstrates the conclusions reached in the Compliance Report:
   1) Hours of operation and amount of fuel burned each hour for each combustion turbine; hours of operation and amount of fuel burned in the auxiliary boiler; and hours of operation of the diesel fire pump and back-up generator engines.

[County Rules 210 and 320] [SIP Rule 32]
   2) Electrical energy output of each Combined Cycle System for each hour of operation.

[County Rules 360 §301 and 40 CFR 60.47a]
   3) Dates on which visible emissions observations were taken, the test method used, and the results of the observations.

[County Rules 300, 210 and SIP Rule 30]
   4) Continuous Emissions Monitoring data related to the emission limits contained in this permit, calibrations, quality assurance, performance demonstrations, and certifications for the reporting period.

[County Rule 210]
   5) Stack emissions test results related to emission limits and/or operational requirements in this Permit.

[County Rule 210]
   6) Cooling tower inspection log and results of conductivity and TDS monitoring.

[County Rule 210]
   7) Odor log.

[County Rule 210]
   8) Any other records and reports required by any Permit Condition contained in this Permit.

[County Rule 210]

21. REPORTING REQUIREMENTS

A. The Permittee shall file a written notice with the Control Officer as described in 40 CFR 60.4, 40 CFR 60.7, 40 CFR 60.19, 40 CFR 60.48c(a), and 40 CFR 60.49b(a) as follows:
   1) A notification of commencement of construction or reconstruction of the facility postmarked within 30 days of such date.
   2) A notification of the actual date of initial startup of each of the Combustion Turbines, Duct Burners, and Auxiliary Boiler postmarked within 15 days of such dates.
   3) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under 40 CFR 60.14(e). This notice shall be postmarked within 60 days or as soon as commenced and shall include information

describing the precise nature of the change, present and proposed emissions control systems, productive capacity of the facility before and after the change, and the expected completion date of the change.

4) In accordance with 40 CFR 60.4, the notifications required by this Permit Condition shall be sent in duplicate to the Director, Air and Waste Management Division, Region IX of the United States Environmental Protection Agency (USEPA). A copy of the notifications shall be sent to the Control Officer.

[County Rule 360 §301] [40 CFR 60.4(a), (b), (D)] [40 CFR 60.7(a), (b), (f)] [40 CFR 60.14(e)] [40 CFR 60.19] [40 CFR 60.48c(a)] [40 CFR 60.49b(a)]

B. In addition to other reports required by this Permit, the Permittee shall report nitrogen oxides concentrations to the Control Officer semiannually for each six month period post marked no later than the 30th day following the end of each six month period as required by 40 CFR 60.7(c), 40 CFR 60.7(d), 40 CFR 60.49a and 40 CFR 60.47a(c)(2) for the duct burners as follows:

1) The initial performance evaluation test data of the Continuous Emissions Monitor and any subsequent performance evaluation test data.

[40 CFR 60.49a(a)]

2) For each 24-hour period, beginning at 12:01 AM and ending at 12:00 midnight, the following information shall be reported to the Control Officer:

a) Calendar date

b) Average nitrogen oxide emission rate in terms of lb/mmBtu for each 30 successive duct burner operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the emission limits; and, description of corrective action taken.

c) Identification of duct burner operating days for which nitrogen oxide or dilutent data have not been obtained for at least 18 hours of operation of the duct burner; justification for not obtaining sufficient data; and description of corrective actions taken.

d) Identification of the times when emissions data have been excluded from the calculation rates because of startup, shutdown, malfunction, or other reasons, and justification for excluding data for reasons other than startup, shutdown, or malfunction.

e) Identification of the “F” factor used for calculations and method of determination.

f) Identification of times when hourly averages have been obtained based on manual sampling methods.

g) Identification of the times when the pollutant concentrations exceeded full span of the continuous monitoring system.

h) Description of any modifications to the continuous emissions monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications required by 40 CFR Part 75.

i) For purposes of this subsection, a “duct burner operating day” is a 24-hour period beginning at 12:01 AM and ending at 12:00 midnight during which natural gas is combusted in a duct burner for the entire 24 hours.

[40 CFR 60.49a(b)]

3) If the minimum quantity of continuous emissions monitoring data as required by this permit is not obtained, and manual methods are substituted, the following information will be reported:
   a) The number of hourly averages available for outlet emission rates from the Combined Cycle System.
   b) The standard deviation of hourly averages for outlet emission rates.
   c) The lower confidence limit for the mean outlet emission rate.
   d) The applicable potential combustion concentration.
   e) The ratio of the upper confidence limit for the mean outlet emission rate.

   [40 CFR 60.49a(c)]

4) For any periods for which nitrogen oxides emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system are to be compared with operation of the control system before and following the period of data unavailability.

   [40 CFR 60.49a(f)]

5) The Permittee shall submit a signed statement Indicating whether:
   a) The required continuous emission monitoring system calibration, span, and drift checks or other period audits have or have not been performed.
   b) The data to show compliance was or was not obtained in accordance with approved methods and procedures and is representative of plant performance.
   c)The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.
   d) Compliance with the standards has or has not been achieved during the reporting period.

   [40 CFR 60.49a(g)]

6) The Permittee shall submit an excess emissions report for NO_x emissions from the duct burners and a NO_x continuous emissions monitoring system (CEMS) performance report as required by 40 CFR 60.7(c) and the summary report form required by 40 CFR 60.7(d). The reports shall be prepared in accordance with 40 CFR 60.7(c)(1), (2), (3) and 40 CFR 60.7(d). When no excess emission have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the reports. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and the CEMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form specified in 40 CFR 60.7(d) shall be used and no excess emissions report shall be required.

   [40 CFR 60.7(c) and (d)]

7) The Permittee may submit electronic reports for the information required by this Permit Condition upon coordination with the Control Officer to develop the required format and including a signed statement that indicates whether compliance with the emissions standards and minimum data requirements of this Permit were achieved during the reporting period.

   [40 CFR 60.49a(j)]

8) Data reported under this Permit Condition shall not include data substituted using the missing data procedures in Subpart D of Part 75 nor shall the data have been bias adjusted according to the procedures of Part 75.

[40 CFR 60.47a(c)(2].

C. In addition to the reports filed by the Permittee in accordance with 40 CFR Part 75 Subpart G, the Permittee shall electronically report to EPA the data and information as required by 40 CFR Part 75.64 on a quarterly basis. Quarterly submittals shall include facility data, unit emission data, monitoring data, control equipment data, monitoring plans and quality assurance data and results.

[40 CFR 75 Subpart G, County Rules 210 and 371]

D. The Permittee shall file a semiannual Compliance Report no later than April 30th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than October 31st and shall report the compliance status of the source during the period between April 1st and September 30th of the current year. The initial Compliance Report shall reflect the compliance status of the source beginning with the date of the permit issuance. The Compliance Report shall include the following information:
   1) Summary of compliance status with respect to each condition contained in this permit; including, but not limited to a description of the basis for the summary conclusions with respect to each permit condition.
   2) Description of and an explanation for any deviations from any permit condition at any time.
   3) A certification that construction has not been discontinued or suspended for 18 months or more. Once construction is complete, a certification that the facility has been constructed as required by this Permit and construction has been completed.

[40 CFR 52.21]

22. TESTING REQUIREMENTS

A. The following apply to all emissions testing required by this Permit Condition:

1) The Permittee shall submit an approvable test protocol to the Department, for review and approval at least 30 days prior to the emissions test. A fee for each stack to be tested shall be submitted with the test protocol as required by County Rule 280.

[County Rule 270 and 280 §301.5]

2) The Permittee shall notify the Department in writing at least two weeks in advance of the actual time and date of the emissions test so that the Division may have a representative attend. [County Rule 270 §404]

3) The Permittee shall complete and submit a report to the Department within 30 days after completion of the emissions test. The report shall summarize the results of the testing in sufficient detail to allow a compliance determination and demonstration of the appropriate ammonia Molar Ratio value (Permit Condition 22.C) to be made.

[County Rule 270 §401]

Note: All protocols, notifications and reports required by this permit condition should be addressed to the attention of the Compliance Testing Supervisor.

B. Testing Requirements for the Combined Cycle Systems and Auxiliary Boiler:

The Permittee shall monitor for compliance with the emission limits of Tables 1, 2, 4, and 5 by conducting stack emissions tests as specified in Table 7.
[County Rule 210 §302.1(c)(2) and (3)] [locally enforceable only][40 CFR 60.8]

Table 7
Stack Emissions Test Requirements

Device to be Tested	Pollutant	Method	Frequency
Each Combined Cycle System when Operating with Duct Burners ON and 95% to 105% of nameplate capacity of the Combined Cycle System	NO_x CO PM_{10} VOC	Method 7e Method 10 Method 5 and 202 Method 25a and 18	Startup and every twelve months thereafter for PM_{10} and VOC, every sixty months thereafter for NO_x and CO
Each Combined Cycle System when Operating with Duct Burners ON and 95% to 105% of nameplate capacity of the Combined Cycle System	Ammonia	Method specified by the Control Officer	Startup and every sixty months thereafter or, for any individual Combined Cycle System, within ninety days of the ammonia (NH_3) injection rate exceeding the value determined by Permit Condition 22.C in a single Combined Cycle System and sixty months thereafter, whichever is more frequent
Each Combined Cycle System when Operating with Duct Burners OFF and 95% to 105% of nameplate capacity of the Combustion Turbine	NO_x CO PM_{10} VOC	Method 7e Method 10 Method 5 and 202 Method 25a and 18	Startup and every twelve months thereafter for PM_{10} and VOC, every sixty months thereafter for NO_x and CO; unless all emission limits in Tables 2 and 5 of this Permit are met with Duct Burners ON
Each Combined Cycle System when Operating with Duct Burners OFF and 60% to 80% of nameplate capacity of the Combustion Turbine	NO_x CO	Method 7e Method 10	Upon Initial Startup
Each Combined Cycle System when Operating with Duct Burners OFF and 60% to 80% of nameplate capacity of the Combustion Turbine	PM_{10} VOC	Method 5 and 202 Method 25a and 18	Startup and every twelve months thereafter
Auxiliary Boiler when operating at 95% to 105% of nameplate capacity	NO_x CO PM_{10} VOC	Method 7e Method 10 Method 5 and 202 Method 25a and 18	Startup and every sixty months thereafter

[County Rule 210 §302.1(c)(2) and (3)] [locally enforceable only][40 CFR 60.8]

a) For purposes of testing frequency, “startup” is defined as “Within 60 days of achieving maximum production rate of the Combined Cycle System, but not later than 180 days after actual startup”.

b) “Method” references to 40 CFR Part 60 Appendix A emissions testing methods.

c) Nameplate capacities are specified in Appendix A of this permit.

C. The ammonia (NH_3) injection rate that triggers additional source testing as required in Table 7 shall be determined as follows:

1) The Trigger Rate is established by the following equation:

Trigger Rate = 29.7 + 1.5*17.034*MR,

Where:

Trigger Rate is pounds ammonia (NH_3) per hour for one Combined Cycle System,
29.7 is the pounds of ammonia emitted at 10 ppm ammonia slip,
1.5 is the moles of NO_x to be reacted at full load with Duct Burners ON and 2.5 ppm emission limit,
17.034 is the molecular weight of ammonia, and
MR is the Molar Ratio of NH_3 to NO_x.

2) A default Molar Ratio (MR) of 1.50 shall be used unless an alternative MR is determined by the Control Officer to be more representative. The initial (upon startup), follow-up stack emissions tests, and/or other emissions monitoring data (whether or not required in Table 7) may be used if acceptable to the Control Officer to determine an alternative MR.
[County Rule 210 §302.1(c)(2) and (3)] [locally enforceable only]

23. OTHER

A. PERMIT SHIELD:
Compliance with the conditions of this Permit shall be deemed compliance with the applicable requirements identified in Appendix B of this Permit. The Permit Shield extends to the non-applicable requirements identified in Appendix C of this permit. The Permit Shield shall not extend to minor permit revisions.
[County Rule 210 §§405.7, 407]

B. COMMENCEMENT OF CONSTRUCTION:
The facility shall commence construction as defined in County Rule 100.200.32 within 18 months of the effective date of this Permit. If construction is not commenced within 18 months, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, this Permit shall become invalid. The Control Officer shall terminate this Permit if construction is not begun within 18 months or if construction is suspended for more than 18 months.
[40 CFR 52.21(r)(2)][County Rule 240.304.4]

C. ACID RAIN PERMIT:
1) The Acid Rain Phase II Permit Application and Certificate of Representation signed by the Designated Representative on April 17, 2000 and submitted to the Control Officer shall constitute the Permittee's Acid Rain Permit.
2) The Permittee shall comply with the Acid Rain Permit, 40 CFR Parts 72, 73, and 75, and the Acid Rain requirements of Permit Condition 6.A.
3) The relevant Conditions of this Permit and the Acid Rain Permit, including but not limited to, the Allowable Emission Limits, Operation Requirements, Monitoring/Recordkeeping Requirements, Reporting Requirements, and Testing Requirements shall constitute the Compliance Plan required by 40 CFR Part 72 Subpart D.
4) The Permittee shall hold SO_2 Allowances as of the allowance transfer deadline in each Combined Cycle System compliance subaccount not less than the total annual actual emissions of SO_2 for the previous calendar year from each combined Cycle System as required by the Acid Rain Program.

5) The SO_2 Allowance Allocations and NO_x Requirements for each Combined Cycle System are as follows:

Affected Unit	Pollutant	Years 2000 - 2009	Years 2010 and beyond
Combined Cycle System No. 1	SO_2	NA	NA
Combined Cycle System No. 1	NO_x	This unit is not subject to a NO_x limit under 40 CFR Part 76	
Combined Cycle System No. 2	SO_2	NA	NA
Combined Cycle System No. 2	NO_x	This unit is not subject to a NO_x limit under 40 CFR Part 76	

NA means no Allocations are available since these are new units.

[40 CFR 72, 73, and 75]

24. PERMIT CONDITIONS FOR SURFACE COATING OPERATIONS AS SUPPORT ACTIVITIES FOR THIS FACILITY *(Note: This does not include architectural coatings, which is covered elsewhere in these permit conditions):*

No surface coating operations other than architectural coatings shall occur at the facility.

25. PERMIT CONDITIONS FOR ARCHITECTURAL COATINGS:

A. Operational Limitations: The Permittee shall not apply any architectural coating manufactured after July 13, 1988, which is recommended for use as a bituminous pavement sealer unless it is an emulsion type coating.

[County Rule 335 §301, SIP Rule 335 §301]

The Permittee shall not apply any non-flat architectural coating manufactured after July 13, 1990, which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings.

The Permittee shall not apply any architectural coating that exceeds the following limits. Limits are expressed in pounds of VOC per gallon of coating as applied, excluding water and any colorant added to tint bases.

[County Rule 335 §303,305 and SIP Rule 335 §303,305]

SPECIALTY COATINGS:

COATING	(lb/gal)
Concrete Curing Compounds	2.9
Dry Fog Coating	
Flat	3.5
Non-flat	3.3
Enamel Undercoaters	2.9
General Primers, Sealers and Undercoaters	2.9
Industrial Maintenance Primers and Topcoats	
Alkyds	3.5
Catalyzed Epoxy	3.5
Bituminous Coating Materials	3.5
Inorganic Polymers	3.5
Vinyl Chloride Polymers	3.5

Chlorinated Rubbers	3.5
Acrylic Polymers	3.5
Urethane Polymer	3.5
Silicones	3.5
Unique Vehicles	3.5
Lacquers	5.7
Opaque Stains	2.9
Wood Preservatives	2.9
Quick Dry Enamels	3.3
Roof Coatings	2.5
Semi-transparent Stains	2.9
Semi-transparent and Clear Wood Preservatives	2.9
Opaque Wood Preservatives	2.9
Specialty Flat Products	3.3
Specialty Primers, Sealers and Undercoaters	2.9
Stains, All	2.9
Traffic Coatings	
Applied to Public Streets and Highways	2.1
Applied to other Surfaces	2.1
Black Traffic Coatings	2.1
Varnishes	2.9
Waterproof Mastic Coating	2.5
Waterproof Sealers	3.3
Wood Preservatives Except Below Ground	2.9

The Permittee shall not apply any flat architectural coating which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings.

[County Rule 335 §304, SIP Rule 335 §304]

The following coatings are exempt from the architectural coatings requirements specified in the permit conditions above:

1) Architectural coatings supplied in containers having capacities of one quart or less.
2) Architectural coatings recommended by the manufacturer for use solely as one or more of the following:
   a) Below ground wood preservative coatings.
   b) Bond breakers.
   c) Fire retardant coatings.
   d) Graphic arts coatings (sign paints)
   e) Mastic texture coatings.
   f) Metallic pigmented coatings.
   g) Multi-colored paints.
   h) Quick-dry primers, sealers and undercoaters.
   i) Shellacs.
   j) Swimming pool paints.
   k) Tile-like glaze coatings.

[County Rule 335 §§306, 307 and SIP Rule 335 §§306, 307]

B. Recordkeeping/Monitoring: The Permittee shall keep the material list of all coatings used. The material list should contain the name of each coating, short description of the material, pounds of VOCs per gallon of coating, excluding water and colorant added to tint bases and amount used. If the coating is exempt from the volatile organic compounds content requirements, the justification for the determination shall be documented and kept on file.

[County Rule 210 §302.1.c(2)]

C. Reporting: The Permittee shall file a semiannual compliance report no later than April 30th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than October 31st and shall report the compliance status of the source during the period between April 1st and September 30th of the current year. The initial compliance report shall reflect the compliance status of the source beginning with the date of the permit issuance. Compliance report shall include material list and a list of the coatings which are exempt from the volatile organic compounds content requirements.

[County Rule 210 §302.1.d.]

D. Testing: If required by the Control Officer testing procedures to determine compliance with prescribed VOC limits shall be consistent with Reference Methods 24 and 24A in the Arizona Testing Manual for Air Pollutant Emissions.

[County Rule 335 §500 and SIP Rule 335 §500]

26. PERMIT CONDITIONS FOR DUST GENERATING OPERATIONS:

A. Dust Control Plan Required: The Permittee shall submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan, before commencing any routine dust generating operation. The Dust Control Plan shall include all the information contained in County Rule 310, Section 304 and shall describe all control measures to be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays. Any control measure that is implemented must meet the applicable standards described in these permit conditions, as determined by the corresponding test method(s), as applicable, and must meet other applicable standards set forth in County Rule 310.

[County Rule 310 §303 and 303.3(b) and SIP Rule 310 §303 and 303.3(b)]]

Failure to comply with the provisions of an approved Dust Control Plan is deemed to be a violation of this Permit. Regardless of whether an approved Dust Control Plan is in place or not, the Permittee is still subject to all requirements of these permit conditions at all times. In addition, the Permittee with an approved Dust Control Plan is still subject to all of the requirements of these permit conditions, even if the Permittee is complying with the approved Dust Control Plan.

[County Rule 310 §306 and SIP Rule 310 §306]

If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any given fugitive dust source still exceed limits from this permit condition, then the Permittee shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended

by the Control Officer, upon request, for good cause. During the time that the Permittee is preparing revisions to the approved Dust Control Plan, the Permittee must still comply with all requirements of these permit conditions.

[County Rule 310 §305 and SIP Rule 310 §305]

B. Allowable Emissions: The Permittee shall not cause, suffer, allow, or engage in any dust generating or other operation which causes fugitive dust emissions exceeding 20% opacity, even during a wind event (i.e., during wind speeds of 25 mph or greater). Exceedances of the opacity limit that occur due to a wind event shall constitute a violation of the opacity limit. However, it shall be an affirmative defense in an enforcement action if the Permittee demonstrates all of the following conditions:

1) All control measures required were followed and one or more of the control measures listed below were applied and maintained;
   a) Cease dust generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 miles per hour. If dust generating operations are ceased for the remainder of the work day, stabilization measures must be implemented; or
   b) Apply water or other suitable dust suppressant once per hour; or
   c) Apply water as necessary to maintain a soil moisture content at a minimum of 12% as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer and the Administer of EPA. For areas which have an optimum moisture content for compaction of less than 12% as determined by ASTM Method D1557-91 (1998) or other equivalent as approved by the Control Officer and the Administer of EPA, maintain at least 70% of the optimum soil moisture content.

2) The 20% opacity exceedance could not have been prevented by better application, implementation, operation, or maintenance of control measures;

3) The Permittee compiled and retained records, in accordance with Recordkeeping requirements of this permit; and

4) The occurrence of a wind event on the day(s) in question is documented by records. The occurrence of a wind event must be determined by the nearest Maricopa County Environmental Services Department Air Quality Division monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked.

[County Rule 310 §301, Table 1, and Table 2 and SIP Rule 310 §301, Table 1, and Table 2]

C. Operational Limitations:

1) Unpaved Access Road: The Permittee shall not allow fugitive dust emissions to exceed 20% opacity from unpaved access roads and:
   a) Shall not allow silt loading equal to or greater than 0.33 oz/ft^2; or
   b) Shall not allow the silt content to exceed 6%; or
   c) As an alternative to meeting the stabilization requirements for an unpaved access road, limit vehicle trips to no more than 20 per day and limit vehicle speeds to no

more than 15 miles per hour. If complying with these permit conditions must include, in a Dust Control Plan, the number of vehicles traveled on the unpaved haul/access roads (i.e., number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).

[County Rule 310 §302.2 and SIP Rule 310 §302.2]

2) Open Area Or Disturbed Surface Area: The Permittee on any disturbed surface area on which no activity is occurring shall meet at least one of the standards described below, as applicable. The Permittee shall be considered in violation of this permit if such inactive disturbed surface area is not maintained in a manner that meets at least one of the standards described below, as applicable.
   a) Maintain a visible crust; or
   b) Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher; or
   c) Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%; or
   d) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%; or
   e) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements; or
   f) Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
   g) Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator of the Environmental Protection Agency (EPA).

[County Rule 310 §302.3 and SIP Rule 310 §302.3]

3) Weed Abatement By Discing Or Blading: When engaged in weed abatement, the Permittee shall comply with the following work practices. Such work practices shall be implemented to meet the standards described in this permit condition.
   a) Apply water before weed abatement by discing or blading occurs; and
   b) Apply water while weed abatement by discing or blading is occurring; and
   c) Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with these permit conditions, after weed abatement by discing or blading occurs; or
   d) Establish vegetative ground cover in sufficient quantity, in compliance with these permit conditions, after weed abatement by discing or blading occurs.

[County Rule 310 §308.8 and SIP Rule 310 §308.8]

4) The Permittee shall not allow or engage in the following on a routine basis:
   a) Unpaved parking lots;
   b) Vehicle use in open areas;
   c) Bulk material transport, hauling, handling and open storage piles;
   d) Placement of bulk material onto paved surfaces; and
   e) Earthmoving operations on disturbed surface areas one acre or greater. (Earthmoving activities associated with construction may be conducted after a separate earthmoving permit is obtained form the Control Officer)

[County Rule 210 §302.1.b(1)]

D. Recordkeeping/Monitoring:

If the Permittee is required to submit and obtain approval of a Dust Control Plan, the Permittee shall keep a daily written log recording the actual application or implementation of the control measures delineated in the approved Dust Control Plan. The log or the records and supporting documentation shall be made available to the Control Officer within 48 hours, excluding weekends, from written or verbal request.

[County Rule 310 §502 and SIP Rule 310 §502]

Copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation shall be retained at least five years from the date such records are established.

[County Rule 310 §503 and SIP Rule 310 §503]

E. Testing:

The following test methods shall be used as appropriate.

1) Opacity Observations:
   a) Dust Generating Operations: Opacity observations of a source engaging in dust generating operations shall be conducted in accordance with County Rules Appendix C, Section 3 (Visual Determination Of Opacity Of Emissions From Sources For Time-Averaged Regulations) of County Rule 310, except opacity observations for intermittent sources shall require 12 rather than 24 consecutive readings at 15-second intervals for the averaging time.

   [County Rule 310 §501.1(a), County Rules Appendix C Section 3 and SIP Rule 310 §501.1(a), Appendix C Section 3]

   b) Unpaved Access Road: Opacity observations of any unpaved access road shall be conducted in accordance with County Rules Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of County Rule 310.

   [County Rule 310 §501.1(c), County Rules Appendix C Section 2 and SIP Rule 310 §501.1(c), Appendix C Section 2]

2) Stabilization Observations:
   a) Unpaved Access Road: Stabilization observations for unpaved access roads shall be conducted in accordance with County Rules Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of County Rule 310. When more than one test method is permitted for a determination, an exceedance of the limits established in this permit determined by any of the applicable test methods constitutes a violation of these Permit conditions.

   [County Rule 310 §501.2(b), County Rules Appendix C Section 2 and SIP Rule 310 §501.2(b), Appendix C Section 2]

   b) Open Area Or Disturbed Surface Area: Stabilization observations for an open area and vacant lot or any disturbed surface area on which no activity is occurring (whether at a work site that is under construction, at a work site that is temporarily or permanently inactive) shall be conducted in accordance with at least one of the

techniques described in County Rule 310 subsection 501.2(c), as applicable. The Permittee shall be considered in violation of this permit if such inactive disturbed surface area is not maintained in a manner that meets at least one of the standards described in County Rule 310 subsection 302.3, as applicable.

[County Rule 310 §501.2(c) and SIP Rule 310 §501.2(c)]

3) Silt and Soil Moisture Content Methods:
   a) ASTM Method C136-96a ("Standard Test Method For Sieve Analysis Of Fine And Coarse Aggregates").
   b) ASTM Method D2216-98 ("Standard Test Method For Laboratory Determination Of Water (Moisture) Content Of Soil And Rock By Mass").
   c) ASTM Method 1557-91(1998) ("Test Method For Laboratory Compaction Characteristics Of Soil Using Modified Effort (56,000 ft-lb/ft3 (2,700 kN-m/m3)").

[County Rule 310 §504 and SIP Rule 310 §504]

27. PERMIT CONDITIONS FOR ABRASIVE BLASTING WITH OR WITHOUT BAGHOUSE:

A. Allowable Emissions: The Permittee shall not discharge into the atmosphere from any abrasive blasting any air contaminant for a period or periods aggregating more than three minutes in any one-hour period which is a shade or density darker than 20 percent opacity.

[County Rule 312 §301] [locally enforceable only]

B. Operational Limitations: The Permittee shall utilize at least one of the following control measures for all abrasive blasting:
   1) Confined blasting,
   2) Wet abrasive blasting,
   3) Hydroblasting,
   4) The use of a CARB certified abrasive blasting media is a permissible control measure for use in dry, unconfined blasting operations provided that the following conditions are met:
      a) Only an abrasive(s) on the most recent CARB certification list may used in the abrasive blasting process.
      b) Blasting is performed only on a metal substrate.
      c) The abrasive blasting medium is used only once.
      d) The existing paint on the surface to be abraded is lead free (i.e. lead content < 0.1%).
      e) Opacity limits of the County Rule 312 are adhered to.
      f) The object to be blasted exceeds 8 feet in any dimension or the surface to be blasted is situated at its permanent location.
      g) Blasting is not performed at ground level on a surface which may be disturbed by the process and contribute to particulate emissions (e.g. unpaved ground).

[County Rule 312 §302.4][locally enforceable only]

The Permittee shall not forcibly exhaust abrasive blasting equipment to the outside of the building unless the exhaust is vented through a baghouse. The baghouse shall operate within operating parameters specified in Operation and Maintenance (O&M) Plan most recently approved in writing by the Control Officer.

[County Rule 312 §302] [locally enforceable only]

C. Record Keeping: The Permittee shall keep records of the following:
   1) The dates when abrasive blasting activities are conducted and the type of abrasive material used.
   2) Monthly records of the type and amount of abrasive blasting media used.
   3) Monthly opacity readings of visible emissions for each month when abrasive blasting is conducted.
   4) Opacity reading during the external blasting.
   5) Every inspection or preventive maintenance performed on the baghouse according to the Operation and Maintenance Plan. The Permittee shall maintain records of the key system operating parameters required by the O&M Plan. The Permittee shall keep a log demonstrating that any training requirements in the approved O&M Plan are being met.

   [County Rules 312 and 210 §302.1.d] [locally enforceable only]

D. Monitoring/Testing: The Permittee shall monitor compliance with the opacity requirements of the permit conditions for abrasive blasting by observations of visible emissions conducted in accordance with EPA Reference Method 9 each time the external blasting is performed and each month the abrasive blasting with baghouse is performed for more than 10 hours.

   Visible emission evaluation of abrasive blasting operations shall be conducted in accordance with the following provisions:
   1) Emissions from unconfined blasting shall be read at the densest point of the emission after a major portion of the spent abrasives has fallen out, at a point not less than five feet nor more than 25 feet from the impact surface from any single abrasive blasting nozzle.
   2) Emissions from unconfined blasting employing multiple nozzles shall be judged as single source unless it can be demonstrated by the Permittee that each nozzle, evaluated separately, meets the emission standards of these Permit Conditions.
   3) Emissions from confined blasting shall be read at the densest point after the air contaminant leaves the enclosure.

   [County Rules 210 § 302.1.c and 312 §501] [locally enforceable only]

E. Reporting: The Permittee shall file a semiannual compliance report no later than April 30th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than October 31st and shall report the compliance status of the source during the period between April 1st and September 30th of the current year. The initial compliance report shall reflect the compliance status of the source beginning with the date of the permit issuance. Compliance report shall include a summary of the opacity readings and date of such readings during external blasting and blasting with baghouse, control measures utilized for abrasive blasting and dates on which any blasting was performed.

   [County Rules 312 and 210 § 302.1.e.(1)] [locally enforceable only]

28. PERMIT CONDITIONS FOR THE COLD DEGREASERS AS SUPPORT ACTIVITIES FOR THIS FACILITY:

The Permittee shall not conduct any cold degreasing or other operations subject to County Rule 331 except for wipe cleaning.

29. PERMIT CONDITIONS FOR WIPE CLEANING:

A. Operational Limitations: The Permittee shall conform to the following operating requirements:
   1) All solvent storage, including the storage of waste solvent and waste solvent residues, shall at all times be in closed leakfree containers which are legibly labeled with their contents and that are opened only when adding or removing material. Rags used for wipe cleaning shall be stored in closed containers when not in use.
   [County Rule 331 §301.1] [SIP Rule 331 §306.3] [SIP Rule 34C.1.(c)]
   2) Do not dispose of any solvent, including waste solvent, in such a manner as will cause or allow its evaporation into the atmosphere.
   [SIP Rule 331 §306.4] [SIP Rule 34K]

B. Monitoring/Recordkeeping: The Permittee shall:
   1) Maintain a current list of solvents; state the VOC content of each in pounds per gallons or grams per liter. The VOC content of solvents and any liquids used as cleaning or degreasing agents shall be stated with water and non-precursors included.
   [County Rule 331 §501.1]
   2) Maintain monthly records showing the type and amount of each make up solvent added and any other VOC-containing materials used.
   [County Rule 331 §501.2(a)], [SIP Rule 331 §501]
   3) Monthly visually inspect the facility to ensure that operational limitations of Permit Condition 31.A (1) and (2) are being met.
   [County Rule 210 §302.1.c]
   4) Records of solvents disposal/recovery shall be kept in accordance with hazardous waste disposal statutes.
   [SIP Rule 331 Section 306.4]

C. Reporting: The Permittee shall file a semiannual compliance report starting from this permit issuance date within 30-days of the end of the 6-month period to the Division with attention to Large Sources Compliance Supervisor containing the current list and summary of usage records of the solvents.
   [County Rule 210 §302.1.e.(1)] [locally enforceable only]

30. PERMIT CONDITIONS FOR CUTBACK AND EMULSIFIED ASPHALT:

A. Operational Limitations:
   The Permittee shall not use or apply the following materials for paving, construction, or maintenance of highways, streets, driveways, parking lots or for any other use to which County Rule 340 §300 and SIP Rule 340 §300 applies:
   1) Rapid cure cutback asphalt.
   2) Any cutback asphalt material, road oils, or tar which contains more than 0.5 percent by volume VOCs which evaporate at 500^0F (260^0C) or less using ASTM Test Method D 402-76.
   3) Any emulsified asphalt or emulsified tar containing more than 3.0 percent by volume VOCs which evaporate at 500^0F (260^0C) or less as determined by ASTM Method D 244-89.
   [County Rule 340 §301 and SIP Rule 340 §301]

The Permittee shall not store for use any emulsified or cutback asphalt product which contains more than 0.5 percent by volume solvent-VOC unless such material lot includes a designation of solvent-VOC content on data sheet(s) expressed in percent solvent-VOC by volume.

[County Rule 340 §303 and SIP Rule 340 §303]

B. Exemptions: The provisions of these Permit Conditions shall not apply to asphalt that is used solely as a penetrating prime coat and which is not a rapid cure cutback asphalt. Penetrating prime coats do not include dust palliatives or tack coats.

[County Rule 340 §302.1 and SIP Rule 340 §302.1]

The Permittee may use up to 3.0 percent solvent-VOC by volume for batches of asphalt rubber which cannot meet paving specifications by adding heat alone only if request is made to the Control Officer, who shall evaluate such requests on a case-by-case basis. The Permittee shall keep complete records and full information is supplied including savings realized by using discarded tires. The Permittee shall not exceed 1100 lbs (500 kg) usage of solvent-VOC in asphalt rubber in a calendar year unless the Permittee can demonstrate that in the previous 12 months no solvent-VOC has been added to at least 95 percent by weight of all the asphalt rubber binder made by the Permittee or caused to be made for the Permittee. This Permit Condition does not apply to batches which yield 0.5 percent or less solvent-VOC evaporated using the test in County Rule 340 § 502.1.

[County Rule 340 §302.3 and SIP Rule 340 §302.3]

C. Record Keeping: The Permittee shall keep daily records of the amount and type of asphaltic/bituminous material received and used, as well as the solvent-VOC content of this material. Safety data (MSDS) or technical data sheets shall be kept available.

[County Rule 210 §302.1.c][County Rule 340 §501 and SIP Rule 340 §501]

D. Testing Methods:
If required by the Control Officer the applicable testing procedures contained in County Rule 340 §502 and SIP Rule 340 §502 shall be used to determine compliance with these Permit Conditions.

[County Rule 340 §502 and SIP Rule 340 §502]

E. Reporting: The Permittee shall file a semiannual compliance report starting from this permit issuance date within 30-days of the end of the 6-month period to the Division with attention to: Large Sources Compliance Supervisor containing the dates and description of any usage of cutback and emulsified asphalt.

[County Rule 210 §302.1.e.(1)] [locally enforceable only]

31. PERMIT CONDITIONS FOR VOLATILE ORGANIC COMPOUNDS:

No activities subject to County Rule 330 shall occur at the facility.

APPENDIX A

MAJOR EQUIPMENT LIST

Arlington Valley Energy Project (AVEP)

A. The facility consists of the following major emitting equipment:

1) Two Combined Cycle Systems (System #1 and System #2) and a common reheat condensing steam turbine and electrical generator.

Each Combined Cycle System consists of the following:

a. General Electric 7FA combustion turbine operating in combined-cycle mode with a nameplate rating of 255 megawatts electric without duct firing and 290 megawatts electric with duct firing and fueled by pipeline quality natural gas only.
b. Supplementary fired, three-pressure Heat Recovery Steam Generator (HRSG) with duct burners. The duct burners each have a nameplate rating of 356.6 mmBtu/hr (HHV) and are fueled by pipeline quality natural gas only.
c. Selective Catalytic Reduction (SCR) nitrogen oxides emissions control system capable of treating the entire exhaust of the Combustion Turbine and duct burners combined to an emission limit equal to or less than 2.5 ppm.
d. Continuous emissions monitor (CEM) system that records at least oxides of nitrogen (NO_x), carbon monoxide (CO), and oxygen (O_2) content of the System exhaust.
e. An exhaust stack with height 185 feet above plant grade and inside diameter of 18 feet.

2) Auxiliary Boiler

a. One 29.3 mmBtu/hr (HHV) auxiliary boiler fueled by natural gas only and exhausting through its own exhaust stack with height 37 feet above plant grade.

3) Wet Cooling Tower

a. One ten-cell wet cooling tower, with each cell rated at 14,424 gallons per minute recirculation rate (144,240 gallons per minute total for the cooling tower) and height 47 feet above plant grade.
b. Continuous cooling water conductivity monitoring system.

4) Diesel Engines

a. One 400 horsepower diesel-fueled engine to drive the fire water pump.
b. One 805 horsepower diesel-fueled engine to drive the back-up generator.

APPENDIX B

PERMIT SHIELD APPLICABLE REQUIREMENTS

Arlington Valley Energy Project (AVEP)

Identified below are all federal, state and local air pollution control requirements applicable to the Permittee at the time the permit is issued. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance included in the Appendix B "Permit Shield" of this permit.

For each part, subpart, section, and subsection reference listed, all subsequent sections are assumed applicable. All other subparts or sections not listed are not applicable.

County Requirements

Maricopa County

Air Pollution Control Regulations

Regulation I General Provisions

Rule 100		**General Provisions and Definitions (7/26/00 revision)**
	§104	Circumvention
	§105	Right of Inspection of Premises
	§106	Right of Inspection of Records
	§ 301	Air Pollution Prohibited
	§ 501	Reporting Requirements
	§ 502	Data Reporting
	§ 503	Emission Statements Required as Stated in the Act
	§ 504	Retention of Records
	§ 505	Annual Emissions Inventory Report

Rule 130		**Emergency Provisions (7/26/00 revision)**
	§400	Administrative Requirements

Rule 140		**Excess Emissions (7/26/00 revision)**
	§400	Administrative Requirements
	§500	Monitoring and Records

Regulation II Permits and Fee

Rule 200		**Permit Requirements (5/20/98 revision)**
	§ 301	Permits Required
	§ 302	Title V Permit
	§ 305	Earth Moving Permit
	§ 306	Permit to Burn
	§ 310	Prohibition – Permit Modification
	§ 311	Permit Posting Required

Rule 210		**Title V Permit Provisions (5/20/98 revision)**
	§ 402	Permit Term
	§ 403	Source Changes Allowed without Permit Revisions
	§ 404	Administrative Permit Revisions
	§ 405	Minor Permit Revisions
	§ 406	Significant Permit Revisions
	§ 407	Permit Shields

Rule 270		**Performance Tests (11/15/93 revision)**
	§ 301	Performance Tests Required (approved test methods)
	§301.1	Applicable Procedures and Testing Methods
	§ 301.2	Opacity determined by Reference Method 9 of the AZ Testing Manual
	§ 401	Performance Tests Required
	§ 402	Testing Criteria
	§ 403	Testing Conditions
	§ 404	Notice of Testing
	§ 405	Testing Facilities Provided
	§ 406	Minimum Testing Required
	§ 407	Compliance with the Emission Limits
	§ 408	Additional Testing

Regulation III Control of Air Contaminants

Rule 300		**Visible Emissions (8/5/94 revision)**
	§ 301	Limitations – Opacity/General: Opacity ≤ 20%
	§ 302	Exceptions
	§ 501	Compliance Determination – Opacity
	§ 502	Compliance Determination – Opacity of Visible Emissions from Intermittent Sources

Rule 310		**Open Fugitive Dust Sources (2/16/00 revision)**
	§ 301	Opacity Limitation for Fugitive Dust Sources
	§302	Stabilization Requirements for Fugitive Dust Sources
	§ 303	Dust Control Plan Required
	§ 304	Elements of a Dust Control Plan
	§ 305	Dust Control Plan Revisions
	§ 306	Control Measures
	§ 308	Work Practices
	§ 401	Dust Control Plan Posting
	§ 501	Compliance Determination
	§ 502	Recordkeeping
	§ 503	Records Retention
	§ 504	Test Methods Adopted by Reference
	Table 1	Source Type and Control Measures
	Table 2	Source Type and Wind Event Control Measures

Rule 312		**Abrasive Blasting (7/13/88 revision)**
	§ 301	Limitations
	§ 302	Controls Required
	§ 501	Visible Emission Evaluation Techniques

Rule 320		**Odors and Gaseous Air Contaminants (7/13/88 revision)**
	§ 300	Standards
	§ 302	Material Containment Required
	§ 304	Limitation – Hydrogen Sulfide

Rule 331		**Solvent Cleaning (4/7/99 revision)**
	§ 301	Solvent Handling Requirements
	§ 501	Recordkeeping and Reporting

Rule 335		**Architectural Coatings (7/13/88 revision)**
	§ 301	Prohibition – Bituminous Pavement Sealers
	§ 303	Final Limits – Non-Flat Architectural Coatings
	§ 304	Limits – Flat Architectural Coatings
	§ 305	Limits – Specialty Coating
	§ 306	Exemptions – Specific Use Coatings
	§ 307	Exemption – Small Containers

Rule 340		**Cutback and Emulsified Asphalt (9/21/92 revision)**
	§ 301	Limitations
	§ 501	Recordkeeping and Reporting

Rule 360		**New Source Performance Standards (3/1/00 revision)**
	§ 301	Adopted Federal Standards
	§ 301	Subpart A – General Provisions
	§ 301	Subpart Da – Standards of Performance for Electric Utility Steam Generating Units for Which Construction Commenced After September 18, 1978
	§ 301	Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
	§ 301	Subpart GG – Standard of Performance for Stationary Gas Turbines

Rule 371		**Acid Rain (3/1/00 revision)**
	§ 301	Incorporated Subparts of the Federal Acid Rain Regulations

Regulation VI Emergency Episodes

Rule 600		**Emergency Episodes (7/13/88 revision)**
	§ 302	Control Actions

Appendices

Appendix C		**(2/16/00 revision)**
	Section 2	Test Methods for Stabilization
	Section 3	Visual Determination of Opacity of Emissions from Sources for the Time-Averaged Regulations

State Requirements

Arizona Administrative Code

(Applicable in Maricopa County; ARS § 49-106)

R18-2-719.C.1 (R9-3-519.C.1)	For stationary rotating machinery having a heat input rate of 4200 million BTU per hour or less, the maximum allowable particulate emissions rate in pounds-mass per hour $E = 1.02Q^{0.769}$ where: Q = heat input in million BTU per hour.

This provision is applicable only to the diesel fire pump engine and the back-up generator. The other fuel burning equipment (Combined Cycle Systems, auxiliary boiler) are not “existing” equipment since a New Source Performance Standard applies (definition of “existing source”, R18-2-101.38).

Federal Requirements

New Source Performance Standards General Provisions (40 CFR Part 60 Subpart A)

§ 60.4(a), (b), (D)	Address
§ 60.7(a), (b), (c), (d),(f)	Notification and Recordkeeping
§ 60.8	Performance Tests
§ 60.12	Circumvention
§ 60.13	Monitoring
§ 60.19	General Notification and Reporting Requirements

New Source Performance Standards – Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978 (40 CFR Part 60 Subpart Da)

§ 60.42a	Standard for Particulate Matter
§ 60.43a(b), (g)	Standard for Sulfur Dioxide
§ 60.44a(a), (d1)	Standard for Nitrogen Oxides
§ 60.46a	Compliance Provisions
§ 60.47a(c) through (j)	Emission Monitoring
§ 60.48a	Compliance Demonstration Procedures and Methods
§ 60.49a	Reporting Requirements

New Source Performance Standards – Standards of Performance for Small Industrial -- Commercial—Institutional Steam Generating Units (40 CFR Part 60 Subpart Dc)

§ 60.48c(a), (g), and (i)	Reporting and Recordkeeping Requirements

New Source Performance Standards – Standards of Performance for Stationary Gas Turbines (40 CFR Part 60 Subpart GG)

§ 60.332(a) and (b)	Standard for Nitrogen Oxides
§ 60.333	Standard for Sulfur Dioxide
§ 60.334(b)	Monitoring of Operations
§ 60.335	Test Methods and Procedures

NESHAP Program (40 CFR Part 61)

Subpart M National Emission Standard for Asbestos	
§ 61.145(a)(2)	Standard for demolition and renovation
§ 61.145(b)(1), (2), (3)(i) and (3)(iv), (4)(i) through (vii) and (4)(ix) and (4)(xvi)	Notification requirements when demolishment involves less than 80 linear meters on pipes and less than 15 square meters on other services and less than one cubic meter off facility components of regulated asbestos containing material (RACM) where the length or area could not be measured previously or there is no asbestos.

Accidental Release Program (40 CFR Part 68)

§ 112(r)(1)	General duty to identify, prevent and minimize the consequences of accidental releases of listed and other extremely hazardous substances.
Part 68	Chemical Accident Prevention Provisions

Permits Regulation (40 CFR Part 72)

Subpart A provisions	**Acid Rain Program General Provisions**
72.9(a), (b), (c), (d), (f), (g)4	Standard Requirements
Subpart B	**Designated Representative**
72.20	Authorizations and Responsibilities of the Designated Representative
72.21	Submissions
72.22	Alternate Designated Representative
72.23	Changing the Designated Representative

Subpart C	**Acid Rain Permit Applications**
72.30(a), (b)(2)(ii), (d)	Requirements to Apply
Subpart D	**Acid Rain Compliance Plan and Compliance Options**
72.40(a)(1)	General, Compliance Plan with sulfur dioxide emissions
Subpart I	**Compliance Certification**
72.90	Annual Compliance Certification Report
72.95	Allowance Deduction Formula
Appendix A	**Methodology for Annualization of Emissions Limits**
Appendix B	**Methodology for Conversion of Emissions Limits**
Appendix D	**Calculation of Potential Electric Output Capacity**

Sulfur Dioxide Allowance System (40 CFR Part 73)

Subpart B	**Allowance Allocations**
73.33(a), (c)	Authorized Account Representative
Subpart D	**Allowance Transfer**
73.50(b)	Scope and Submission of Transfers

Continuous Emission Monitoring (40 CFR Part 75)

Subpart A	**General**
75.4(b)(2),(c)(2),(i)(2)	Compliance Dates
Subpart B	**Monitoring Provisions**
75.10	General Operating Requirements
75.11(d)(2)	Specific Provisions for Monitoring SO_2 Emissions
75.12(a),(b),(c)	Specific Provisions for Monitoring NO_x Emissions
75.13(b)	Specific Provisions for Monitoring CO_2 Emissions
75.16(b),(e)	Special Provisions for Monitoring Emissions from Common, Bypass, and Multiple Stacks for SO_2 Emissions and Heat Input Determinations

Subpart C	**Operation and Maintenance Requirements**
75.20	Certification and Recertification Procedures
75.21	Quality Assurance and Quality Control Requirements
75.22	Reference Test Methods
75.24	Out-of-Control Periods and Adjustments for System Bias
Subpart D	**Missing Data Substitution Procedures**
75.30	General Provisions
75.31	Initial Missing Data Procedures
75.32	Determination of Monitor Data Availability for Standard missing Data Procedures
75.33	Standard Missing Data Procedures for SO_2, NO_x, and Flow Rate
75.34	Units with Add-on Emission Controls
75.35	Missing Data Procedures for CO_2 Data
75.36	Missing Data Procedures for Heat Input Determinations
Subpart E	**Alternative Monitoring Systems**
75.40	General Demonstration Requirements
75.41	Precision Criteria
75.42	Reliability Criteria
75.43	Accessibility Criteria
75.44	Timeliness Criteria
75.45	Daily Quality Assurance Criteria
75.46	Missing Data Substitution Criteria
75.47	Criteria for a Class of Affected Units
75.48	Petition for an Alternate Monitoring System
Subpart F	**Recordkeeping Requirements**
75.53(a), (b), (f)(1), (f)(4), (f)(6)	Monitoring Plan
75.57	General Recordkeeping Provisions
75.58(b), (c)	General Recordkeeping Provisions for Specific Situations
75.59	Certification, Quality Assurance, and Quality Control Record Provisions

Subpart G	**Reporting Requirements**
75.60	General Provisions
75.61	Notifications
75.62	Monitoring Plan Submittals
75.63	Initial Certification or Recertification Application Submittals
75.64	Quarterly Reports
Subpart H	**NO_x Mass Emissions Provisions**
Appendix A	**Specifications and Test Procedures**
Appendix B	**Quality Assurance and Quality Control Procedures**
Appendix F	**Conversion Procedures**
Appendix G	**Determination of CO_2 Procedures**

Protection of Stratospheric Ozone (40 CFR Part 82)

Subpart F	**Recycling and Emissions Reduction**
§ 82.161	Technician Certification
§ 82.166	Reporting and Recordkeeping

Subpart G	**Significant New Alternatives Policy Program**
§ 82.174(b)	Prohibition against use of substitute
§ 82.174(c)	Prohibition against use of substitute without adhering to use restrictions
§ 82.174(d)	Prohibition against use of substitute after added to list of unacceptable substitutes

Federal Requirements

Maricopa County State Implementation Plan (as of 10/01/00)

Regulation I	**General Provisions**
Rule 3	Air Pollution Prohibited

Regulation II	**Permits**
Rule 22 – Permit Denial – Action – Transfer – Posting – Revocation – Compliance	
§F – Permit Posting	
Rule 27 - Performance Tests	

Regulation III	**Control of Air Contaminants**
Rule 30 - Visible Emissions	
Rule 31 - Emissions of Particulate Matter	
§§ A.1,2,3,4,6,7, - Non-Point Sources of Particulate Matter.	
§ H.1.a - Fuel Burning	
Rule 32 - Odors and Gaseous Emissions	
§§ A, C, E, F	
Rule 34 – Organic Solvents – Volatile Organic Compounds	
§ C.1 – Metal cleaning operations	
§ K – Limits on Photochemically Reactive Solvent	
Rule 310 – Fugitive Dust Sources	
Rule 335 – Architectural Coatings	
Rule 340 – Cutback and Emulsified Asphalt	
§§ 301, 501	

Rule IV Production of Records: Monitoring, Testing and Sampling Facilities

Rule 40	**Recordkeeping and Reporting**
Rule 41 § A	**Monitoring**
Rule 42	**Testing and Sampling**
Rule 43	**Right of Inspection**

Regulation VII Ambient Air Quality Standards

Rule 72	**Emergency Episode Criteria**
§72e	Air Pollution Alert Actions
§72f	Air Pollution Warning Actions
§72g	Air Pollution Emergency Actions

APPENDIX C

PERMIT SHIELD NON-APPLICABLE REQUIREMENTS

Arlington Valley Energy Project (AVEP)

Identified below are *some* of the federal, state and local air pollution control requirements that do NOT apply to the Permittee at the time the permit is issued because the operations subject to these rules will not occur at AVEP. The list is not all inclusive and there may be additional requirements that do not apply but are not listed in this Appendix C of this permit.

Federal Rules Not Applicable to AVEP

CAA Section 112(g)	**Case by Case MACT**
40 CFR Part 63	**NESHAPs for Major Sources of HAPs**
40 CFR 60 Subpart D	**Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971**
40 CFR 60 Subpart Db	**Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units**
40 CFR 64	**Compliance Assurance Monitoring**
40 CFR 75.17	**Affected Units Exhausting through a Common Stack**

County and Federally Enforceable SIP Rules Not Applicable to AVEP

Rule 34(E)(1)	**Non-architectural spray paint operations**
Rule 310, Sections 302.1, 302.4, 308.1, 308.2, 308.3, 308.6, 308.7	**Certain material handling and other dust generating activities that will not occur at AVEP on a routine basis**
Rules 330 and 331, Sections 302-309	**Solvent cleaning machines**
Rules 50 and 314	**Open Outdoor Fires**

APPENDIX D

MONITORING NO_X COMPLIANCE BY AMMONIA INJECTION RATE MONITORING

To ensure that the SCR system at the AVEP facility is properly operated to achieve the design control rate of 2.5 ppm NOx, the owner/operator shall monitor and achieve a minimum ammonia injection rate for the first two years of commercial operation. Once this two year period is completed and the final NOx emission limit is determined, the "minimum ammonia injection rate" requirement shall be no longer be effective. The minimum ammonia injection rate to achieve 2.5 ppm controlled levels shall be calculated as follows:

Step 1 – Calculate the required NOx Removal:

This calculation uses the actual measured NO_x concentration at the turbine outlet (i.e., before the SCR system) and the target control level of 2.5 ppm to determine the amount of NOx that must be removed. The actual turbine outlet NOx concentration is used because the turbine emissions can vary, and so the amount of NOx that must be removed also varies. From Equation F-5 in 40 CFR 75 (for converting from ppm to lb/MMBTU):

$NO_x = [1.194 \times 10^{-7}$ (lb/scf)/ppm] [X-2.5 ppm] [8,710 scf/MMBTU] [(20.9%)/(20.9% - 15%O_2)]
where:
X = ppmv NO_x in turbine outlet to SCR
Flue gas is standardized to 15% O_2 for combustion turbine

Simplifying this equation results in :

NO_x to be removed = (0.00368 X - 0.00921) lb/MMBTU NOx

Step 2 – Calculate the required NH_3 injection rate:

Since 1 mole of NH_3 reacts with one mole of NO, but 2 moles of NH_3 react with one mole of NO2, the equation uses the relative molecular weights of NH_3 versus NO to calculate the required NH_3 injection rate in units of lb/MMBTU. (Since the ratio of NO2 to NO is probably less than 0.5, using a molar ratio other than 1.0 would overestimate the minimum required NH_3 injection rate). The minimum rate is, therefore:

NH_3 = [(0.00368 X - 0.00921) lb/MMBTU NOx] (17NH_3/46 NOx)
= (0.00136 X - 0.00340) lb/MMBTU NH_3

Example

If the measured turbine outlet NOx at full load without duct burners is equal to the manufacturers guarantee of 9 ppm, then the required NH3 injection rates is
NH_3 = (0.00136 * 9) – 0.00340 = 0.00884 lb/MMBTU

Step 3 –Calculate the ammonia usage and verify compliance with the required NH_3 injection rate:

When the source and type of ammonia is determined (i.e., anhydrous versus aqueous solution at some specified concentration level), the following equation will be used to verify compliance with the required ammonia injection rate:

NH3 injected (lb) = gallons of NH3 solution used (gal) * density of liquid (lb/gal) *
equivalent concentration of NH3 by weight (lb NH3/lb solution)

Step 4 – Compliance Averaging Interval

The daily average (i.e., 24-hour block average) turbine outlet NO_x concentration during periods of normal operation above 60% load will be measured and reported. The daily ammonia consumption during the same time periods of normal operations will also be measured and reported. The above equations will be used to demonstrate compliance with the required ammonia injection rate on a daily basis.

END OF PERMIT